NEW BRUNSWICK FOREST

INVENTORY (1986) REPORT

TIMBER MANAGEMENT BRANCH 1989

Natural
Resources
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Ressources
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INVENTORY (1986) REPORT

Timber Management Branch
Forest Utilization and Inventory Section
Department of Natural Resources and Energy
Fredericton, New Brunswick
1989

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ISBN 1-55048-064-2

NRE/RNE-89-01-003

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INTRODUCTION

On April 1, 1982 the management of provincial Crown forests held under Crown Timber Licenses was to be undertaken, on behalf of the Crown, by ten Licensees. The basis of tenure on a Crown Timber License is a Forest Mangement Agreement (FMA) between the Licensee and the Department of Natural Resources and Energy (DNRE). With each FMA, the Crown through the Crown Lands and Forests Act requires a minimum 25 year forest management plan which outlines a harvest schedule (5 year increments), silviculture treatment schedule and maintainance and development of fish and wildlife habitat.

Past N.B. Inventories (1958, 1968 and 1979) indicated that New Brunswick's forests had an uneven age-class structure with the majority of the volume in the "old forest" category or trees that were maturing or have matured. In addition a large proportion of the forest was in the regenerating or "new forest" stage. To sustain an annual harvest of approximately 3.6 million cubic metres on Crown land, it was imperative that those stands making up the "older forest" be properly scheduled for harvest so that both quality and quantity of softwood supply could be maintained until the "new forest" reached merchantable levels.

To this end an updated and modified inventory was needed to delineate stands by a set of parameters that influenced stand development. From 1981-85 approximately 35 000 colour aerial photographs (1:12 500) were interpreted. In addition approximately 14 000 stands were cruised to verify the interpretation and collect volume information. This report summarizes the inventory.

Since the management of Crown Land is undertaken on a License by License basis, area and volume information is summarized for each License. Likewise, information for Private Woodlots is summarized for each Marketing Board. Industrial Freehold area and volume information is summarized by Licensee, Sub-Licensee and Other Industrial Freehold Owners.

The inventory is intended for use in planning and policy making by both public and private agencies, but must be supplemented for use in forest management operations as the estimates given are only valid for relatively large areas.

FOREST DEVELOPMENT SURVEY

New Brunswick's forests are made up of many stands, each following its own development pattern. At any point in time each stand will be at a certain development stage. To project forest stand development, the development of each stand in the forest has to be accounted for in some fashion. It is possible to identify stand types which follow similar patterns in terms of time to maturity, wood volume achieved, time to decadence and responses to management interventions. By first determining the proportion of the forest made up of each of these stand types (forest units) and secondly determining what proportion of each is at what stage of development (age class structure) it is possible to project forest development and thereby guide design of forest management strategies.

The Forest Development Survey (FDS) was initiated to identify these stand types by a set of parameters that influences stand development. The FDS involved four phases:

1. *The acquisition of aerial photography*
2. *The interpretation of the aerial photographs*
3. *Ground sampling to verify interpretation and collect volume information.*
4. *Mapping of delineated stands and loading spatial descriptive data on a Geographic Information System.*

Aerial Photography

To identify the various stand types using the parameters which influence stand development, it was necessary to acquire aerial photographs which best revealed these characteristics. The interpretation of forest stands had to reveal species composition (primarily major softwood and hardwood species groups), development stage (the relative stage of maturity), crown closure (a measure of the amount of ground covered by the stand canopy), and specific site stand indicators such as partial cuts, poor sites and silviculture treatments.

With these parameters specified, a test area in southwest New Brunswick was flown in 1980 at various altitudes and with various cameras, lenses, filters and film. After careful deliberation true colour aerial photographs at a scale of 1:12 500 was chosen as the standard.

Each year from 1981 to 1985 a section or sections of the province were flown and photographed. The photography was concentrated on relatively small areas because of logistics and financial constraints and to insure a high degree of quality. Contractors involved in the acquisition of these photos were required to adhere to rigid technical specifications for both the photographing and printing phases of the contract as described in the Interdepartmental Committee on Air Surveys (ICAS) Specifications for Aerial Survey Photography 1981, and ICAS Manual of Procedures. The Photo Reproduction Division, Maritime Resource Management Service inspected all photographs.

Test prints were made from each roll of film to select the appropriate colour tones and to ensure that quality met the specifications. Photographs were also checked for scale to ensure that the 1:12 500 ±5% was maintained for each photo.

In all approximately 35 000 true colour aerial photographs were acquired.

Interpretation

There were eleven separate interpretation contracts coinciding with the aerial photography schedule. Fraser Inc. and J. D. Irving Limited, two of the provinces largest industrial freehold owners, acquired their own photography and completed their own interpretation based on compatible but slightly modified FDS procedures.

Each contract area was subdivided into blocks corresponding with orthophotos created by the Land Registration and Information Service (LRIS). These orthophotos were reduced to 1:12 500 scale to match the new colour aerial photos.

Each block was interpreted by using the following procedures:

1. The 1:12 500 true colour aerial photographs were interpreted using the FDS classification system (Appendix I). This interpretation was verified through ground sampling by the interpreter, contractor crews and DNRE personnel. An accuracy of 80% was to be maintained for each element of the classification system based on each 8 600 ha block except species composition which required an accuracy of 75%.

2. Photo-interpreted stand information was transferred to 1:12 500 orthophoto milar maps.

3. Stand classification information was recorded on computer coding forms.

4. Silviculture treatment areas were recorded by stand number and type of treatment on computer coding forms.

5. Linear features (rivers, roads, power lines, etc.) were transferred from orthophotos to milar copy and recorded on computer coding forms.

6. All stand line boundaries and linear features were edgematched between contiguous orthophoto maps to ensure that boundaries and classifications were continuous and compatible at each margin.

Once the interpreter compeleted a full draft check of each map the orthophoto milar was forwarded to DNRE for computer digitizing to a Geographic Information System (GIS). The GIS is simply a computerized system for storage, retrieval and analysis of digital map information.

Ground Sampling

The third phase of the FDS was ground sampling, to verify the photo-interpretation and to provide volume information. Ground sampling was done on a random basis and as area summaries became available additional cruise lines were placed in stands where needed.

In total approximately 14 000 cruise lines (1 cruise line per forest stand) each consisting of five to seven point-samples (2BAF prism) were established throughout the province. Information collected at each point-sample location included:

1. *Tree distribution by species.*
2. *Tree distribution by DBH.*
3. *Tree distribution by age-class.*
4. *Tree distribution by grade.*
5. *The stage or stages of stand development*
    - *a) Regenerating*
    - *b) Immature-Young*
    - *c) Immature-Old*
    - *d) Mature*
    - *e) Overmature.*
6. *Crown Closure for each age-class.*
7. *Indication of Poor Site condition.*
8. *Stand disturbance, including cutting, windthrow and mortality.*
9. *Silviculture Treatment.*
10. *Expected stand development.*

The FDS ground sampling procedures are discussed in more detail in the "New Brunswick Forest Development Survey Field Manual" available at Timber Management Branch, DNRE.

DATA COMPILATION

In 1981 DNRE obtained the ARC/INFO Geographic Information System (GIS, designed by Environmental Systems Research Institute of Redlands, California; to construct a complete forest resource database. This database consisted of three polygon layers of information.

The first was forest and non-forest land structure provided by the FDS through photo-interpretation from the 1:12 500 colour aerial photos. The second layer, consisting of line data portraying roads, streams, railways, and transmission lines was graphically overlaid on the land structure to provide geographic reference. Land ownership formed the third and differentiated 1) Crown land by License, 2) Industrial freehold land by individual ownership and, 3) Private Woodlots by forest products marketing boards.

The three layers of spatial information each described by computer attributes were then intersected to form the standard 1:12 500 map configuration. The provincial database is substantial in size with 1989 base maps averaging approximately 4300 ha per full map sheet. Because of the sheer number of forest stands, delineated down to three ha in size, a stratification system was devised to incorporate all stands into seventeen different forest unit names (FUNA). FUNA was based on merchantable volume of each species in a forest stand (Appendix III).

The GIS supplied area summaries by ownership for all non-forest and forest conditions. Area summaries for forest land listed stand types by FUNA, development stage, crown closure, site condition, harvested condition and silviculture treatment.

The cruise information generated by the ground sampling phase of the FDS was analysed on an ownership basis. Computer output for each cruise line consisted of a listing of gross merchantable volume in cubic metres per hectare for each species and diameter class groupings. Volumes were consolidated into the following diameter groups for summary purposes; 10-14 cm, 16-24 cm and 26+ cm. For each License and Marketing Board, gross merchantable volume estimates were calculated for each FUNA/development stage by species. These average volumes were used in association with the area summaries to calculate all gross merchantable volumes across each ownership.

All measurements and calculations were made in Metric SI units.

LIMITATIONS

AREA

During the first year of the forest development survey (1981), there was no delineation of the immature development stage. During the course of ground sampling to verify the interpretation and consultations with the interpreters, it was clear that there was a distinction between a young immature and an old immature stand, and that this distinction could be interpreted using the 1:12 500 aerial photographs. Starting in 1982 this delineation was recognized on all interpreted photographs. However, the area covered by the 1981 photography encompassed the majority of Licenses 8 and 9 and the York-Sunbury-Charlotte, Carleton-Victoria marketing boards. Differentation is limited in the area summaries for these ownerships in the immature young development stage.

At the time of preparing this report the area summaries for Licensee Industrial Freehold (IFLIC) were incomplete. Approximately 765 000 ha of the total area of 1 086 388 ha (70%) was available for the inventory. The actual area summary for the 765 000 ha was then projected over the total to complete the licensee industrial freehold area summary.

VOLUME

During the ground sampling phase of the FDS some strata on certain ownerships were insufficiently sampled because of insufficient area covered by the strata and the minor role the strata has in the provincial wood supply. In any case average volumes for those specific strata were obtained from averaging the same strata from grouping other ownerships or averaging similar strata from other ownerships.

Industrial freehold (IF) volume information was calculated using the average volume calculated from plots on Crown Land and using the IF area information available for the inventory.

TWO-AGE CLASS STANDS

A two-age class stand encompasses two separate strata, where a stratum consists of a forest unit and development stage. The average volume of these stands was calculated for all stems in both age-classes. The first-age class was used to determine the forest unit (FUNA) unless one of the two following conditions was met:

1. *All stands which had a harvest condition in the first-age class and the crown closure of the first-age class was less than 6-2, the second-age class was used for the forest unit.*

2. If the development stage of the first-age class was older than the development stage of the second-age class and the crown closure of the first-age class was less than the crown closure of the second-age class, the second-age class was used for the forest unit.*

* Exception: If R appeared in the second-age class and crown closure for the first-age class was greater than or equal to 62, the first-age class was used for the forest unit.

Total area information was based on the first-age class forest unit, while average volume was calculated for all stems in a two-age class stand. This resulted in some strata not following the forest unit algorthim. For example, the softwood volume in a hardwood-softwood stand was greater than the hardwood component. This was usually because of the softwood content in the second-age class strata.

OWNERSHIP

Inventory information is provided for the three ownership categories in the Province (Crown Land, Industrial Freehold, Private Woodlots). Some small discrepancies exist in ownership, specifically, some small provincial picnic sites were classified as private woodlots as well as some small parcels of federal land. The ownership data base is continually being updated and these inaccuracies will be corrected.

Federal Land was not interpreted under the Forest Development Survey, as such only total Federal Land area is presented.

GRAPHS

The graphs displayed in this report were compiled using a micro-computer graphics package. The pie charts use a legend which at times may make the graph difficult to read. The following information will aid in this regard. All charts have a legend in the upper righthand corner displaying a cross-hatched symbol and the name of each variable being plotted. On the pie charts, these variables are plotted sequentially starting from the three o'clock position and moving counterclockwise. The relevant percentage of each pie section is written outside the pie with the label pointing to the middle of the pie section.

NEW BRUNSWICK LAND OWNERSHIP

■ **CROWN LAND (C)** - Land owned by the provincial government.

■ **PRIVATE WOODLOTS (PW)** - Land owned by individuals who do not own or operate a wood processing facility.

■ **INDUSTRIAL FREEHOLD (IF)** - Land owned by companies or individuals who own or operate a wood processing facility.

☐ **FEDERAL LAND (F)** - Land owned by or under the jurisdiction o the federal government.

■ **WATER**

PROVINCIAL SUMMARY

AREA

The total area of the Province of New Brunswick is 7 265 912 hectares, of which 157 603 hectares are Federal lands. The remaining area is 83 percent productive forest land, 7 percent non-productive/wasteland, 7 percent cleared land and 3 percent water.

Approximately 48 percent of the 5 920 964 hectares of productive forest land in the province is on Crown Land, 30 percent is on Private Woodlots and 21 percent is on Industrial Freehold Land.

The softwood (S) cover type comprises 46 percent of all productive forest land assigned to a cover type (R to O development stages) ranging from 404 333 hectares on Industrial Freehold Land to 1 345 242 hectares on Crown Land. The spruce-balsam fir (SPBF) and the balsam fir-spruce (BFSP) forest units (FUNAS) represent 82 percent of this area (or 38 percent of total productive forest). The hardwood (H) cover type comprises 27 percent of all productive forest land assigned to cover types. Approximately 27 percent of productive forest land is in mixed-wood cover types.

Approximately 40 percent of productive forest land is in the mature and overmature development stages, 36 percent in the immature-young and-old stages and 24 percent is in the regeneration stage including cuts, burns and old fields.

VOLUME - softwood

The total gross merchantable volume of softwood in New Brunswick is 391 188 852 cubic metres or approximately 68 percent of the total gross merchantable volume. Spruce and balsam fir together comprise 80 percent of the gross merchantable softwood volume.

The distribution of spruce-balsam fir volume varies by ownership with Crown Land having the highest concentration, averaging 65.23 cubic metres per productive hectare followed by Industrial Freehold Land at 56.05 cubic metres and Private Woodlots at 31.52 cubic metres per productive hectare.

The distribution of balsam fir ranges from 11.46 cubic metres per productive hectare on Private Woodlots, 23.00 cubic metres on Industrial Freehold Land to 25.71 cubic metres per productive hectare on Crown Land. Similarly, the distribution of spruce volume (49 percent of the total softwood volume) ranges from 20.05 cubic metres per productive hectare on Private Woodlots, 33.05 cubic metres on Industrial Freehold Land to 39.52 cubic metres per productive hectare on Crown Land.

Cedar comprises approximately 10 percent of the total gross merchantable softwood volume. Although 44 percent of the cedar volume is *on Crown Land the distribution in terms of cubic metres per productive hectare ranges from 6.21 cubic metres per productive hectare on Crown Land, 6.71 cubic metres on Industrial Freehold Land to 7.81 cubic metres per productive hectare on Private Woodlots.*

The total gross merchantable volume of white pine in the province is 12 978 046 cubic metres. Approximately 55 percent of this volume is on Crown land. The distribution in terms of cubic metres per productive hectare is relatively constant with 2.50 cubic metres on Crown Land, 2.21 cubic metres on Industrial Freehold Land and 1.69 cubic metres per productive hectare on Private Woodlots.

The remaining gross merchantable softwood volume in the province totals 23 908 926 cubic metres. This volume is comprised of 42 percent jack pine (highest concentration being 2.46 cubic metres per productive hectare on Crown Land), 26 percent larch (highest concentration being 1.86 cubic metres per productive hectare on Private Woodlots), 25 percent hemlock (highest concentration being 1.56 cubic metres per productive hectare on Private Woodlots) and 7 percent red pine (highest concentration being 0.42 cubic metres per productive hectare on Crown Land).

VOLUME- hardwood

The total gross merchantable volume of hardwood in New Brunswick is 186 863 669 cubic metres or approximately 32 percent of the total gross merchantable volume. The tolerant hardwoods represent 62 percent of this volume and is comprised of 41 percent red maple, 27 percent sugar maple, 19 percent yellow birch, 12 percent beech and less than 1 percent other tolerant hardwoods.

The distribution of red maple ranges from 7.83 cubic metres per productive hectare on Private Woodlots, 8.04 cubic metres on Crown Land to 8.32 cubic metres per productive hectare on Private Woodlots.

The distribution of sugar maple, the more commercially valuable of the two maple species, ranges from 3.94 cubic metres per productive hectare on Private Woodlots to 8.97 cubic metres on Industrial Freehold Land.

The concentration of yellow birch is highest on Industrial Freehold Land at 6.08 cubic metres per productive hectare while beech has the highest volume per productive hectare on Industrial Freehold Land at 3.21 cubic metres.

Intolerant hardwoods represent 38 percent of the gross merchantable hardwood volume and is comprised of 54 percent poplar, 39 percent white birch and 7 percent other intolerant species.

The distribution of poplar ranges form 5.05 cubic metres per productive hectare on Industrial Freehold Land, 5.08 cubic metres on Crown Land to 9.83 cubic metres per productive hectare on Private Woodlots.

White birch volume distribution is relatively constant, ranging from 4.31 cubic metres per productive hectare on Industrial Freehold to 4.91 cubic metres per productive hectare on Crown Land.

VOLUME - tree size

The major classification parameter to separate trees by product (veneer, sawlog, pulpwood) is size, particularly DBH. However, only a certain percentage of this volume is of log quality. The forest development survey incorporated a tree grading procedure based both on size and quality, however, due to the subjective nature of the quality analysis and the difference in each cruiser's perception of the quality parameters, only a breakdown of volume by tree size is presented.

The volume of log size (26+ cm DBH) spruce in the province is 64 268 606 cubic metres and ranges from 6.10 cubic metres per productive hectare on Private Woodlots, 11.37 cubic metres on Industrial Freehold Land to 13.60 cubic metres per productive hectare on Crown Land.

The volume of log size (26+ cm DBH) balsam fir is 23 624 846 cubic metres ranging from 1.45 cubic metres per productive hectare on Private Woodlots, 4.72 cubic metres on Industrial Freehold Land to 5.28 cubic metres per productive hectare on Crown Land.

The volume of log size (26+ cm DBH) cedar is 19 790 761 cubic metres ranging from a low of 2.39 cubic metres per productive hectare on Private Woodlots to a high of 3.94 cubic metres on Industrial Freehold land.

The volume of log size (26+ cm DBH) white pine is 10 656 138 cubic metres with the highest concentration of 2.10 cubic metres per productive hectare on Crown land.

The volume of log size (26+ cn DBH) red and jack pine, hemlock and larch volume is 10 120 902 cubic metres and is scattered in various concentrations across all ownerships.

The volume of log size (26+ cm DBH) tolerant hardwoods in the province is 53 275 812 cubic metres and ranges from 5.09 cubic metres per productive hectare on Private Woodlots, 9.26 cubic metres on Crown land, to 14.04 cubic metres per productive hectare on Industrial Freehold Land.

The volume of log size (26+ cm DBH) intolerant hardwoods is 26 055 606 cubic metres, averaging approximately 4-5 cubic metres per hectare on all ownerships.

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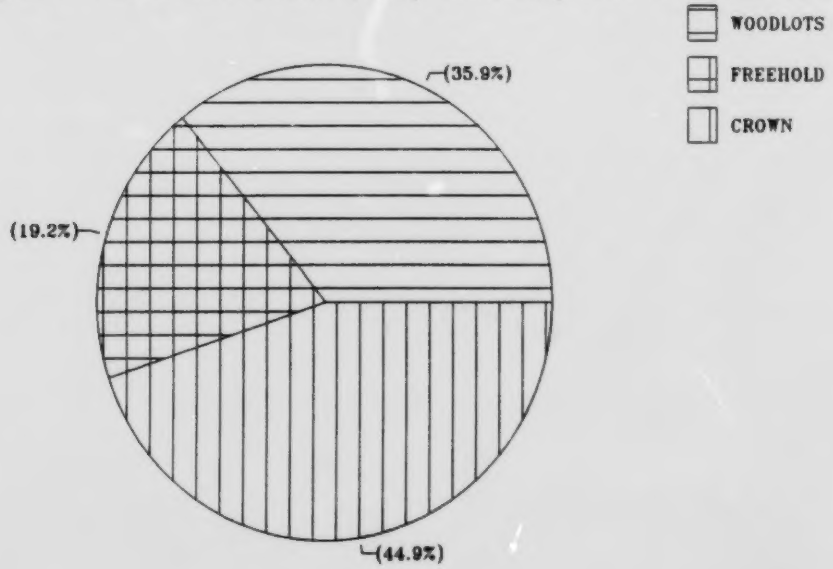
Table P1. Area (ha) by land classification and ownership for New Brunswick.

	PRIVATE LAND		CROWN LAND	TOTAL
LAND CLASSIFICATION	Private Woodlots	Industrial Freehold		
FOREST LAND				
Productive	1802031	1248205	2870728	5920964
Non-productive	80746	24427	49098	154271
TOTAL	1882777	1272632	2919826	6075235
CLEARED LAND				
Cultivated	297258	1919	1888	301065
Occupied	136406	19839	39979	196224
TOTAL	433664	21758	41867	497289
WASTE LAND	97838	45803	180781	324422
FEDERAL LAND				157603
PROVINCIAL PARKS AND NURSERIES			19754	19754
TOTAL LAND	2414279	1340193	3162228	7074303
WATER	135311	26699	29599	191609
TOTAL AREA	2549590	1366892	3191827	7265912

Figure P1. Area distribution (%) by ownership for New Brunswick.



For help in reading Pie Charts, refer to the Graphs section under LIMITITATIONS (Page 7).

Table P2. Productive forest land (ha) by development stage and ownership for New Brunswick.

DEVELOPMENT STAGE	PRIVATE LAND		CROWN LAND	TOTAL
	Private Woodlots	Industial Freehold		
Regenerating	140498	92601	203570	436669
Young	160022	31517	186612	378151
Immature	720759	328871	710052	1759682
Mature	399246	502098	1293425	2194769
Overmature	6456	91165	85179	182800
TOTAL	1426981	1046252	2478838	4952071
Cuts	286523	196053	359824	842400
Burns	7789	3444	30882	42115
Fields	80738	2456	1184	84378
TOTAL	375050	201953	391890	968893
PRODUCTIVE FOREST LAND	1802031	1248205	2870728	5920964
Plantations	6949	2528	114949	124426

Table P2a. Distribution of productive forest land (%) by development stage and ownership for New Brunswick.

DEVELOPMENT STAGE	PRIVATE LAND		CROWN LAND	TOTAL
	Private Woodlots	Industial Freehold		
Regenerating	2.37	1.56	3.44	7.37
Young	2.70	.53	3.15	6.39
Immature	12.17	5.55	11.99	29.72
Mature	6.74	8.48	21.84	37.07
Overmature	.11	1.54	1.44	3.09
TOTAL	24.10	17.67	41.87	83.64
Cuts	4.84	3.31	6.08	14.23
Burns	.13	.06	.52	.71
Fields	1.36	.04	.02	1.43
TOTAL	6.33	3.41	6.62	16.36
PRODUCTIVE FOREST LAND	30.43	21.08	48.48	100.00
Plantations	.12	.04	1.94	2.10

Total area of Industrial Freehold plantations is incomplete.

Table P3. Area (ha) by cover type, development stage and ownership for New Brunswick.

		PRIVATE LAND		CROWN LAND	TOTAL
COVER TYPE	DEVELOPMENT STAGE	Private Woodlots	Industrial Freehold		
S	Regenerating	61521	26606	67279	155406
	Young	56914	6532	64792	128238
	Immature	233403	91022	328234	652659
	Mature	165048	239744	820967	1225759
	Overmature	3099	40429	63970	107498
	TOTAL	519985	404333	1345242	2269560
SH	Regenerating	15594	7248	14505	37347
	Young	20160	2515	12495	35170
	Immature	123853	38089	73447	235389
	Mature	65414	83223	166071	314708
	Overmature	481	10585	6894	17960
	TOTAL	225502	141660	273412	640574
HS	Regenerating	19101	14882	29633	63616
	Young	25406	3279	21708	50393
	Immature	147273	48902	94443	290618
	Mature	73283	73284	138042	284609
	Overmature	444	11698	5414	17556
	TOTAL	265507	152045	289240	706792
H	Regenerating	44282	43865	92153	180300
	Young	57542	19191	87617	164350
	Immature	216230	150858	213928	581016
	Mature	95501	105847	168345	369693
	Overmature	2432	28453	8901	39786
	TOTAL	415987	348214	570944	1335145
ALL	Regenerating	140498	92601	203570	436669
	Young	160022	31517	186612	378151
	Immature	720759	328871	710052	1759682
	Mature	399246	502098	1293425	2194769
	Overmature	6456	91165	85179	182800
	TOTAL	1426981	1046252	2478838	4952071

Table P3a. Area distribution (%) by cover type, development stage and ownership for New Brunswick.

		PRIVATE LAND		CROWN LAND	TOTAL
COVER TYPE	DEVELOPMENT STAGE	Private Woodlots	Industrial Freehold		
S	Regenerating	1.24	.54	1.36	3.14
	Young	1.15	.13	1.31	2.59
	Immature	4.71	1.84	6.63	13.18
	Mature	3.33	4.84	16.58	24.75
	Overmature	.06	.82	1.29	2.17
	TOTAL	10.50	8.16	27.17	45.83
SH	Regenerating	.31	.15	.29	.75
	Young	.41	.05	.25	.71
	Immature	2.50	.77	1.48	4.75
	Mature	1.32	1.68	3.35	6.36
	Overmature	.01	.21	.14	.36
	TOTAL	4.55	2.86	5.52	12.94
HS	Regenerating	.39	.30	.60	1.28
	Young	.51	.07	.44	1.02
	Immature	2.97	.99	1.91	5.87
	Mature	1.48	1.48	2.79	5.75
	Overmature	.01	.24	.11	.35
	TOTAL	5.36	3.07	5.84	14.27
H	Regenerating	.89	.89	1.86	3.64
	Young	1.16	.39	1.77	3.32
	Immature	4.37	3.05	4.32	11.73
	Mature	1.93	2.14	3.40	7.47
	Overmature	.05	.57	.18	.80
	TOTAL	8.40	7.03	11.53	26.96
ALL	Regenerating	2.84	1.87	4.11	8.82
	Young	3.23	.64	3.77	7.64
	Immature	14.55	6.64	14.34	35.53
	Mature	8.06	10.14	26.12	44.32
	Overmature	.13	1.84	1.72	3.69
	TOTAL	28.82	21.13	50.06	100.00

Figure P2a. Area distribution (%) by land classification.

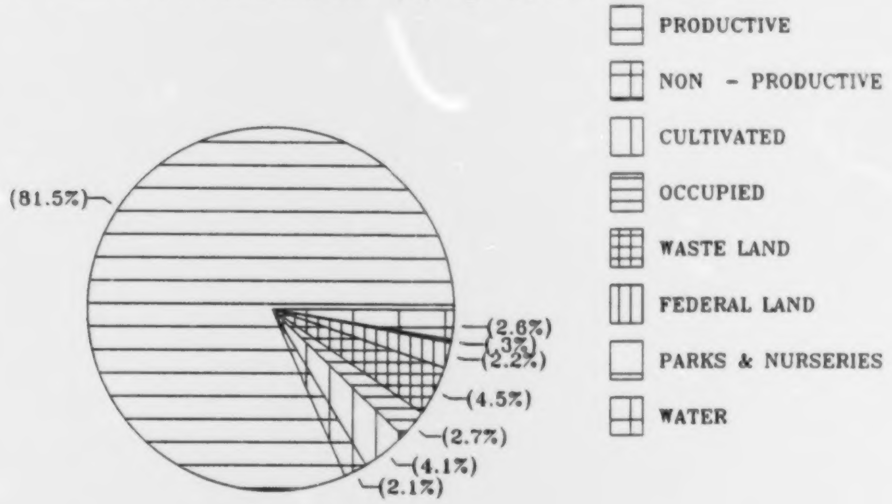


Figure P2b. Area distribution (%) by development stage.

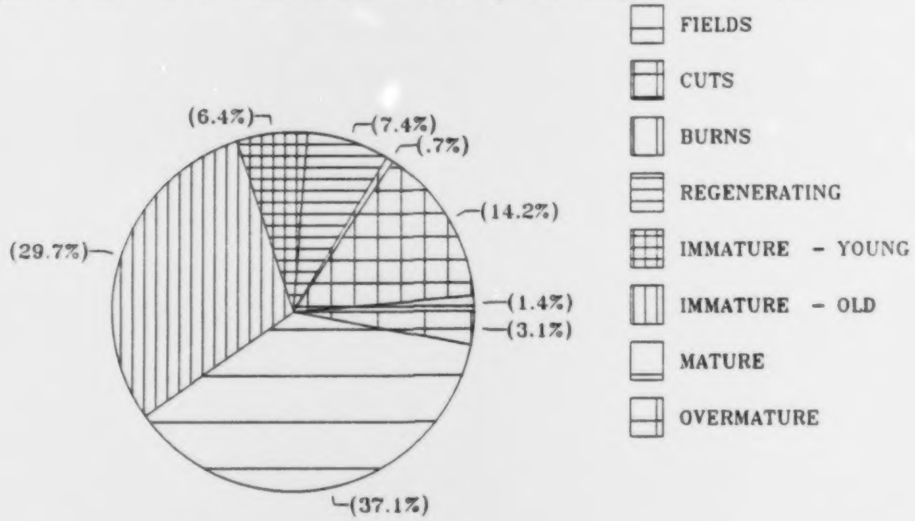


Figure P2c. Area distribution (%) by cover type.

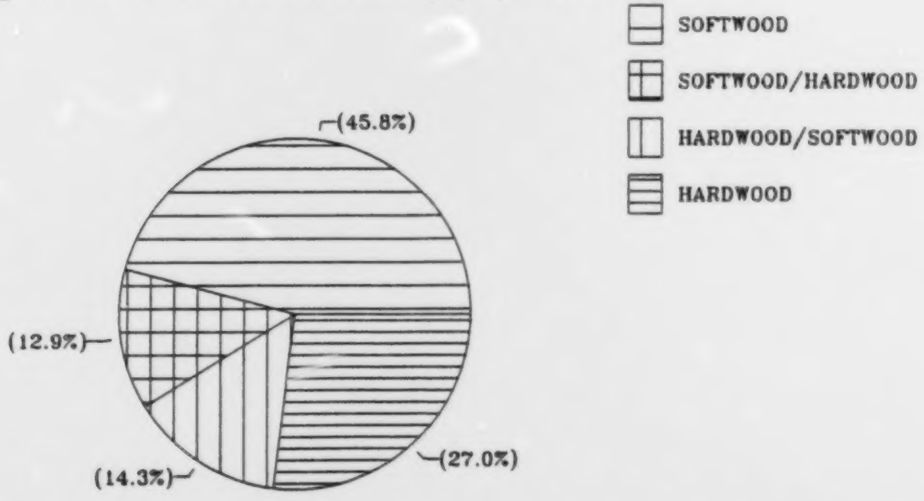


Table P4. Area (ha) by cover type, forest unit and development stage for New Brunswick.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE					TOTAL	PERCENT
		Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	86191	78121	469703	639379	43236	1316630	26.59
	BFSP	56864	22334	88708	340099	33640	541645	10.94
	PINE	8348	16104	41607	40490	1048	107597	2.17
	PSSP	1069	2194	15246	51446	6627	76582	1.55
	OTSW	2934	9485	37395	154345	22947	227106	4.59
	TOTAL	155406	128238	652659	1225759	107498	2269560	45.83
SH	SPTH	4859	6718	101719	152018	3332	268646	5.42
	SPIH	7582	11874	75984	66538	3581	165559	3.34
	BFTH	7508	6810	30080	61649	5974	112021	2.26
	BFIH	17398	9768	27606	34503	5073	94348	1.91
	TOTAL	37347	35170	235389	314708	17960	640574	12.94
HS	THSP	5635	8758	100674	110372	3158	228597	4.62
	IHSP	14924	15479	108633	84395	2760	226191	4.57
	THBF	7590	8591	35980	55220	8890	116271	2.35
	IHBF	35467	17565	45331	34622	2748	135733	2.74
	TOTAL	63616	50393	290618	284609	17556	706792	14.27
H	TOHW	32155	82281	315535	185652	27102	642725	12.98
	THIH	26726	18984	65066	30125	528	141429	2.86
	INHW	88491	45347	147186	111597	11426	404047	8.16
	IHTH	32928	17738	53229	42319	730	146944	2.97
	TOTAL	180300	164350	581016	369693	39786	1335145	26.96
ALL COVER TYPES	TOTAL	436669	378151	1759682	2194769	182800	4952071	100.00
ALL COVER TYPES	PERCENT	8.82	7.64	35.53	44.32	3.69	100.00	

Figure P3. Area by cover type and development stage.

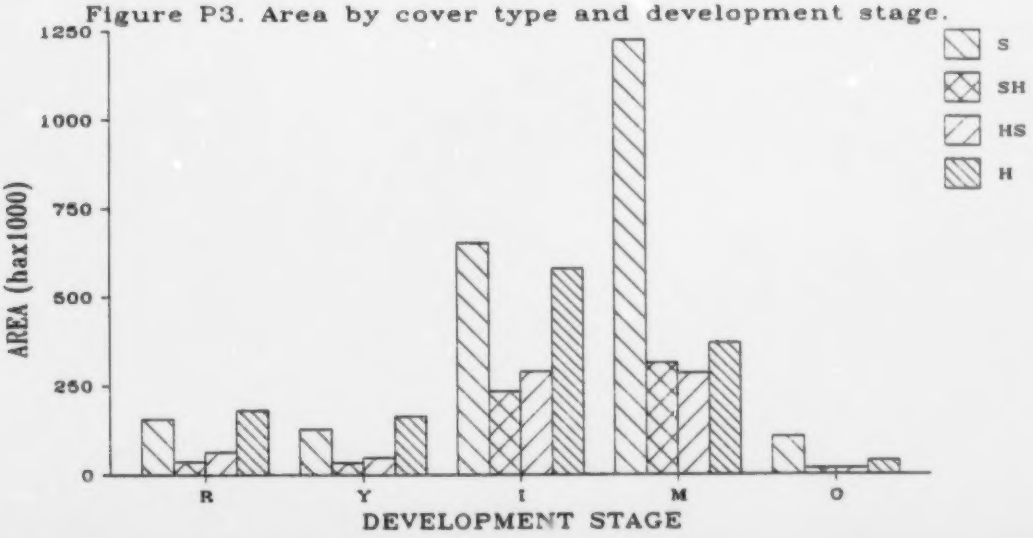


Table P5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage for New Brunswick.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	5198667	51702908	83766408	6025389	146693372	25.38
		HW	496653	5285381	7373810	480914	13636758	2.36
	BFSP	SW	1720057	10487693	50138762	4816947	67163459	11.62
		HW	283411	1678327	6558343	626765	9146846	1.58
	PINE	SW	1350775	5419740	6101837	130532	13002884	2.25
		HW	82016	333382	308780	2494	726672	.13
	PSSP	SW	95056	971781	3477970	394599	4939406	.85
		HW	4223	34379	59109	0	97711	.02
	OTSW	SW	771702	4368382	21094604	4063153	30297841	5.24
		HW	88998	474980	2002642	215921	2782541	.48
SH	SPTH	SW	358946	8415747	14822106	361290	23958089	4.14
		HW	150272	3866301	7020313	241363	11278249	1.95
	SPIH	SW	614461	5742887	5651626	383459	12392433	2.14
		HW	273391	2994002	2827790	182624	6277807	1.09
	BFTH	SW	398071	2373902	5822654	652301	9246928	1.60
		HW	168487	1116407	2811750	328477	4425121	.77
	BFIH	SW	614854	2470868	3522467	434032	7042221	1.22
		HW	155146	843615	1422855	154778	2576394	.45
HS	THSP	SW	448681	6204005	8031234	139297	14823217	2.56
		HW	344793	5960344	7780861	233111	14319109	2.48
	IHSP	SW	638167	5920275	5134494	144845	11837781	2.05
		HW	564082	6017575	5421579	204350	12207586	2.11
	THBF	SW	531015	1917105	3993477	480192	6921789	1.20
		HW	374343	2023251	3925817	635158	6958569	1.20
	IHBF	SW	1032299	2992368	2057552	180140	6262359	1.08
		HW	618982	2470294	2225501	184370	5499147	.95
H	TOHW	SW	2700888	8465372	6172719	1314663	18653642	3.23
		HW	6517391	29312369	17450608	2885747	56166115	9.72
	THIH	SW	658830	2295113	1062999	21559	4038501	.70
		HW	1212066	4652788	2402517	35883	8303254	1.44
	INHW	SW	1468331	4212926	3885969	714166	10281392	1.78
		HW	1584412	11648906	9581345	1037370	23852033	4.13
	INTH	SW	710275	1757177	1147173	18913	3633538	.63
		HW	799298	3851911	3888572	69976	8609757	1.49

Table P5a. Gross merchantable volume (m3) by cover type, species class, and development stage for New Brunswick.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SW	9136257	72950504	164579581	15430620	262096962	45.34
	HW	955301	7806449	16302684	1326094	26390528	4.57
	TOTAL	10091558	80756953	180882265	16756714	288487490	49.91
SH	SW	1986332	19003404	29818853	1831082	52639671	9.11
	HW	747296	8820325	14082708	907242	24557571	4.25
	TOTAL	2733628	27823729	43901561	2738324	77197242	13.35
HS	SW	2650162	17033753	19216757	944474	39845146	6.89
	HW	1902200	16471464	19353758	1256989	38984411	6.74
	TOTAL	4552362	33505217	38570515	2201463	78829557	13.64
H	SW	5538324	16730588	12268860	2069301	36607073	6.33
	HW	10113167	49465974	33323042	4028976	96931159	16.77
	TOTAL	15651491	66196562	45591902	6098277	133538232	23.10
ALL COVER TYPES	SW	19311075	125718249	225884051	20275477	391188852	67.67
	HW	13717964	82564212	83062192	7519301	186863669	32.33
	TOTAL	33029039	208282461	308946243	27794778	578052521	100.00
ALL COVER TYPES (%)	SW	3.34	21.75	39.08	3.51	67.67	
	HW	2.37	14.28	14.37	1.30	32.33	
	TOTAL	5.71	36.03	53.45	4.81	100.00	

Table P6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage for New Brunswick.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	67	110	131	139	119
		HW	6	11	12	11	11
	BFSP	SW	77	118	147	143	139
		HW	13	19	19	19	19
	PINE	SW	84	130	151	125	131
		HW	5	8	8	2	7
	PSSP	SW	43	64	68	60	65
		HW	2	2	1	0	1
	OTSW	SW	81	117	137	177	135
		HW	9	13	13	9	12
SH	SPTH	SW	53	83	98	108	91
		HW	22	38	46	72	43
	SPIH	SW	52	76	85	107	78
		HW	23	39	42	51	40
	BFTH	SW	58	79	94	109	88
		HW	25	37	46	55	42
	BFIH	SW	63	90	102	86	92
		HW	16	31	41	31	33
HS	THSP	SW	51	62	73	44	66
		HW	39	59	70	74	64
	IHSP	SW	41	54	61	52	56
		HW	36	55	64	74	58
	THBF	SW	62	53	72	54	64
		HW	44	56	71	71	64
	IHBF	SW	59	66	59	66	62
		HW	35	54	64	67	55
H	TOHW	SW	33	27	33	49	31
		HW	79	93	94	106	92
	THIH	SW	35	35	35	41	35
		HW	64	72	80	68	72
	INHW	SW	32	29	35	63	33
		HW	35	79	86	91	76
	IHTH	SW	40	33	27	26	32
		HW	45	72	92	96	76

Table P7. Gross merchantable volume (m3) by species and development stage for New Brunswick.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	8240687	62755689	111757198	8091610	190845184	33.02
Balsam Fir	7041297	38739317	69957944	7430063	123168621	21.31
Jack Pine	1259488	4503314	4216242	124629	10103673	1.75
Red Pine	54167	648347	881673	12945	1597132	.28
White Pine	789058	5108522	6582355	498111	12978046	2.25
Cedar	841201	9155866	26325735	3965223	40288025	6.97
Hemlock	257305	2080538	3565683	102658	6006184	1.04
Larch	827872	2726656	2597221	50238	6201987	1.07
TOTAL SOFTWOOD	19311075	125718249	225884051	20275477	391188852	67.67
Red Maple	2415236	18724623	25228411	1198601	47566871	8.23
Sugar Maple	2583611	14853980	12178967	2020420	31636978	5.47
Yellow Birch	1211282	8309931	11415413	1752307	22688933	3.93
Beech	1942171	6990675	4194155	500485	13627486	2.36
Other Tolerant	23173	347486	194487	11525	576671	.10
Total Tolerant	8175473	49226695	53211433	5483338	116096939	20.08
White Birch	1807538	10767050	14065264	810604	27450456	4.75
Poplar	3486279	19807329	14194695	1098231	38586534	6.68
Other Intolerant	248674	2763138	1590800	127128	4729740	.82
Total Intolerant	5542491	33337517	29850759	2035963	70766730	12.24
TOTAL HARDWOOD	13717964	82564212	83062192	7519301	186863669	32.33
TOTAL ALL SPECIES	33029039	208282461	308946243	27794778	578052521	100.00
PERCENT	5.71	36.03	53.45	4.81	100.00	

Table P7a. Gross merchantable volume (m3) by ownership, species class and development stage for New Brunswick.

OWNERSHIP	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
PRIVATE WOODLOTS	Softwood	7605297	44135370	29830524	465840	82037031	14.19
	Hardwood	5639619	33439570	17951608	341471	57372268	9.93
	Total	13244916	77574940	47782132	807311	139409299	24.12
INDUSTRIAL FREEHOLD	Softwood	1601037	23438821	50769525	8784498	84593881	14.63
	Hardwood	1297412	18348509	21233651	4842307	45721879	7.91
	Total	2898449	41787330	72003176	13626805	130315760	22.54
CROWN	Softwood	10104741	58144058	145284002	11025139	224557940	38.85
	Hardwood	6780933	30776133	43876933	2335523	83769522	14.49
	Total	16885674	88920191	189160935	13360662	308327462	53.34
ALL OWNERSHIPS	Softwood	19311075	125718249	225884051	20275477	391188852	67.67
	Hardwood	13717964	82564212	83062192	7519301	186863669	32.33
	Total	33029039	208282461	308946243	27794778	578052521	100.00

Figure P4a. Total volume by species class and development.

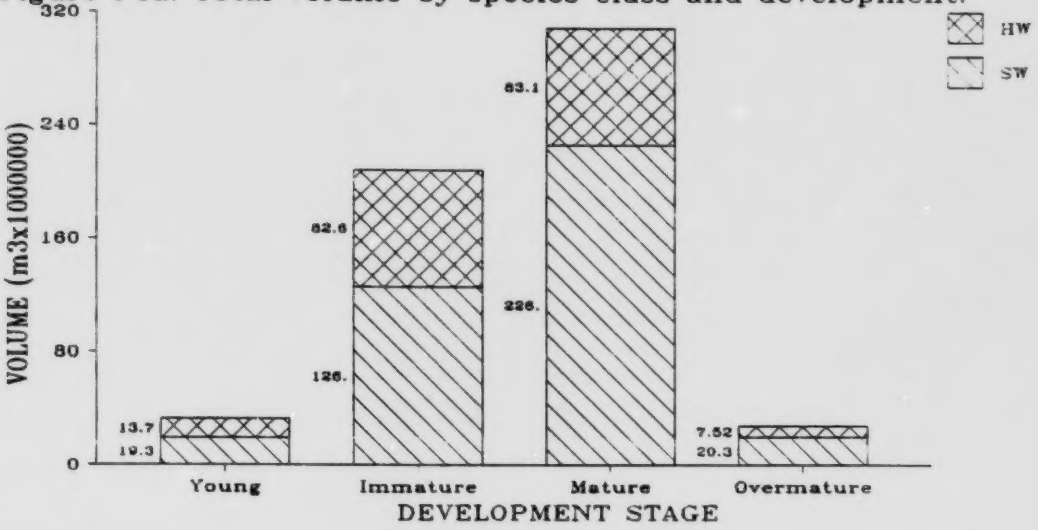


Figure P4b. Volume per ha by species class and development.

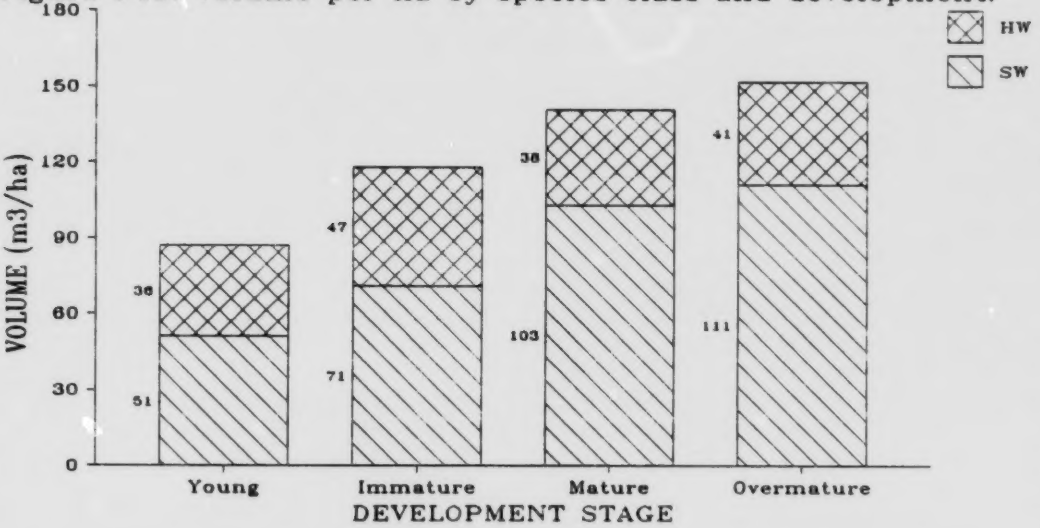


Figure P4c. Total area (hax1000) by development stage.

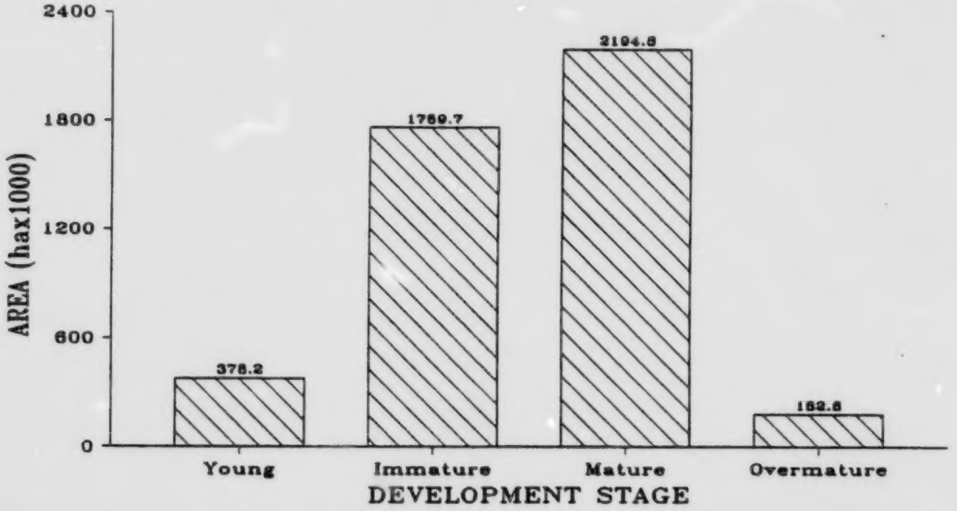


Table P8. Gross merchantable volume (m3) by species and DBH class (cm) for New Brunswick.

SPECIES	DBH CLASS 10-14	16-24	26+	TOTAL	PERCENT
Spruce	36166629	90409949	64268606	190845184	33.02
Balsam Fir	31160947	68382828	23624846	123168621	21.31
Jack Pine	1807698	5743743	2552231	10103673	1.75
Red Pine	52781	418349	1126001	1597132	.28
White Pine	477342	1844565	10656138	12978046	2.25
Cedar	4590758	15906506	19790761	40288025	6.97
Hemlock	279717	1374608	4351859	6006184	1.04
Larch	1214893	2896283	2090811	6201987	1.07
TOTAL SOFTWOOD	75750766	186976833	128461254	391188852	67.67
Red Maple	11687111	20921599	14958162	47566871	8.23
Sugar Maple	4285693	9491439	17859846	31636978	5.47
Yellow Birch	2067589	5945983	14675361	22688933	3.93
Beech	2839579	5205383	5582524	13627486	2.36
Other Tolerant	155875	220877	199920	576671	.10
Total Tolerant	21035846	41785281	53275812	116096939	20.08
White Birch	7575967	12910627	6963862	27450456	4.75
Poplar	5030083	15576737	17979714	38586534	6.68
Other Intolerant	2106145	1511565	1112030	4729740	.82
Total Intolerant	14712195	29998929	26055606	70766730	12.24
TOTAL HARDWOOD	35748041	71784210	79331418	186863669	32.33
TOTAL ALL SPECIES	111498807	258761043	207792672	578052521	100.00
PERCENT	19.29	44.76	35.95	100.00	

Figure P5. Volume by species class and DBH class.

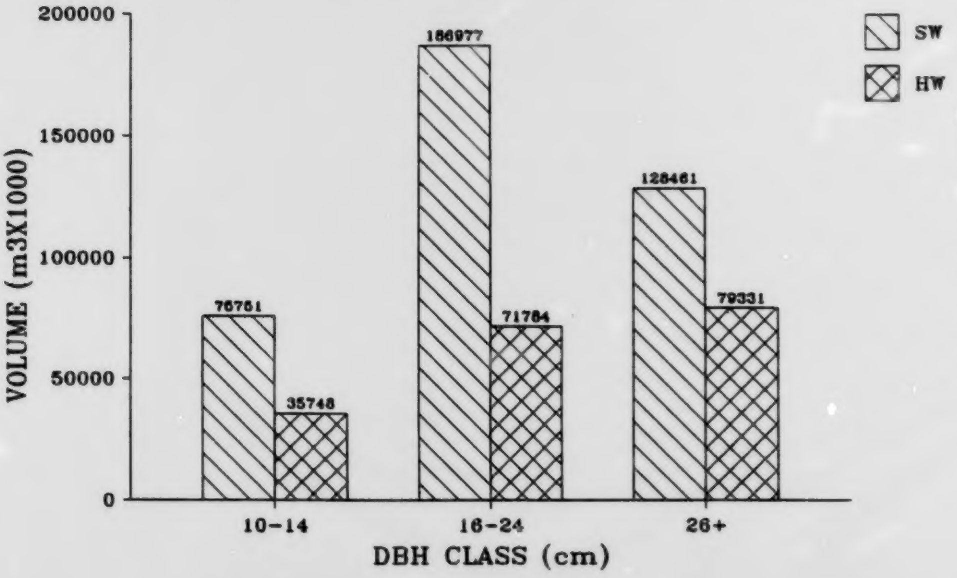
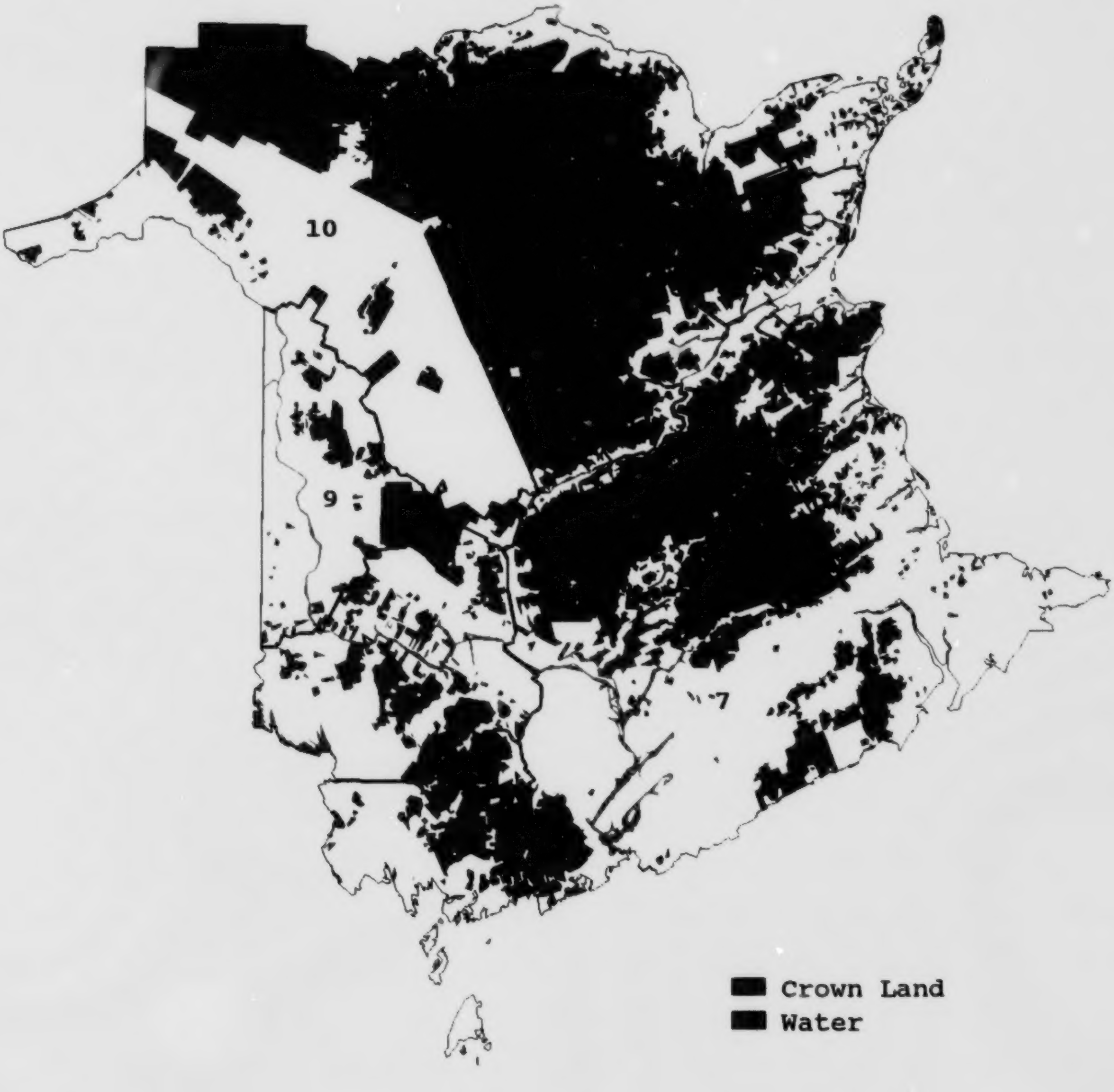


Table P8a. Gross merchantable volume (m3) by ownership, species class and DBH class (cm) for New Brunswick.

OWNERSHIP	SPECIES CLASS	DBH CLASS 10-14	16-24	26+	TOTAL	PERCENT
PRIVATE WOODLOTS	Softwood	18259400	39986483	23791148	82037031	14.19
	Hardwood	13991576	25564724	17815968	57372268	9.93
	Total	32250976	65551207	41607116	139409299	24.12
INDUSTRIAL FREEHOLD	Softwood	15650914	40004941	28938026	84593881	14.63
	Hardwood	7349054	15715459	22657366	45721879	7.91
	Total	22999968	55720399	51595392	130315760	22.54
CROWN	Softwood	41820140	107066693	75671107	224557940	38.85
	Hardwood	14450561	30467320	38851641	83769522	14.49
	Total	56270701	137534014	114522747	308327462	53.34
ALL OWNERSHIPS	Softwood	75750766	186976833	128461254	391188852	67.67
	Hardwood	35748041	71784210	79331418	186863669	32.33
	Total	111498807	258761043	207792672	578052521	100.00

CROWN LAND



LICENSE	**LICENSEE**
1 UPSALQUITCH	NBIP Forest Products Inc.
2 NEPISIGUIT	Consolidated-Bathurst Inc.
3 LOWER MIRAMICHI	Miramichi Pulp & Paper Inc.
4 UPPER MIRAMICHI	Miramichi Pulp & Paper Inc.
5 KENT	Atlantic Waferboard Inc.
6 QUEENS-CHARLOTTE	J. D. Irving Ltd.
7 FUNDY	J. D. Irving Ltd.
8 YORK	St. Anne Nackawic Pulp & Paper Company Ltd.
9 CARLETON	Juniper Lumber Co. Ltd.
10 RESTIGOUCHE-TOBIQUE	Fraser Inc.

CROWN LAND SUMMARY

Under the Crown Lands and Forests Act management of New Brunswick's Crown forest lands has been assigned to ten crown timber licenses. As such, this section will present area and volume information for each license and total Crown land.

AREA

The total area of Crown land in New Brunswick is approximately 3 172 073 hectares, of which 91 percent is productive forest land, 7 percent is non-productive/wasteland, 1 percent is cleared land and 1 percent is water. There is approximately 2 870 728 hectares of productive forest land on all ten licenses ranging from 62 212 hectares on the Kent License to 476 565 hectares on the Queens-Charlotte License.

The softwood (S) cover type comprises 54 percent of all productive forest land assigned to a cover type (R - O) on Crown Land ranging from 27 880 hectares on the Kent License to 241 195 hectares on the Upper Miramichi License. The spruce-balsam fir (SPBF) and the balsam fir-spruce (BFSP) forest units (FUNAS) represent 85 percent of this area (or 40 percent of total productive forest land). The hardwood (H) cover type comprises 23 percent of all productive forest land assigned to cover types on Crown land. Approximately 23 percent of all productive forest land assigned to a cover type on Crown land is in mixed-wood conditions.

Approximately 48 percent of productive forest land on Crown land is in the mature and overmature development stages, 31 percent is in the immature-young and old development stages and 21 percent is in the regenerating development stage including cuts, burns and old fields.

VOLUME - softwood

The total gross merchantable volume of softwood on Crown land is 224 557 940 cubic metres or approximately 73 percent of the total gross merchantable volume. Spruce and balsam fir together comprise over 83 percent of the gross merchantable softwood volume on Crown land.

The distribution of spruce-balsam fir volume varies across the ten Licenses, ranging from a low of 40.50 cubic metres per productive hectare on the Kent License to a high concentration of 93.13 cubic metres per productive hectare on the Upper Miramichi License.

The distribution of balsam fir ranges from 4.95 cubic metres on the Kent License to 54.45 cubic metres per productive hectare on the Restigouche-Tobique License. The distribution of spruce ranges from a low of 23.01 cubic metres on the Upsalquitch License to a high of 59.67 cubic metres per productive hectare on the Upper Miramichi License.

Cedar comprises approximately 8 percent of the total gross merchantable softwood volume on Crown land and ranges from 2.58 cubic *metres per productive hectare on the Fundy License to a high concentration of 11.49 cubic metres per productive hectare on the York License.*

The gross merchantable volume of white pine on Crown Land is 7 170 250 cubic metres ranging from 0.48 cubic metres on the Restigouche-Tobique License to 4.03 cubic metres per productive hectare on the Lower Miramichi License.

The remaining gross merchantable softwood volume on Crown Land totals 12 290 826 cubic metres. This volume is comprised of 56 percent jack pine (highest concentration being 5.96 cubic metres per productive hectare on the Lower Miramichi License), 17 percent hemlock (highest concentration being 3.87 cubic metres per productive hectare on the York License), 16 percent larch (highest concentration being 1.33 cubic metres per productive hectare on the Kent and York Licenses) and 10 percent red pine (highest concentration being 1.36 cubic metres per productive hectare on the Queens-Charlotte License).

VOLUME - hardwood

The total gross merchantable volume of hardwood on Crown Land is 83 769 522 cubic metres or approximately 27 percent of the total gross merchantable volume. The tolerant hardwoods represent 64 percent of this volume and is comprised of 43 percent red maple, 25 percent sugar maple, 21 percent yellow birch and 11 percent beech. Other tolerant hardwood species only represent less than 0.5 percent of the total gross merchantable volume of tolerant hardwoods.

The distribution of red maple ranges from a low of 4.98 cubic metres per productive hectare on the Restigouche-Tobique License to a high of 14.56 cubic metres per productive hectare on the York License.

The distribution of sugar maple, the more commercially valuable of the two maple species, ranges from 1.44 cubic metres per productive hectare on the Kent License to 12.40 cubic metres per productive hectare on the Carleton License.

The highest concentration of yellow birch occurs on the Carleton License at 7.66 cubic metres per productive hectare, while, beech has the highest volume per productive hectare on the Carleton License at 5.93 cubic metres.

Intolerant hardwoods represent approximately 36 percent of the gross merchantable hardwood volume on Crown Land and is comprised of 48 percent poplar, 47 percent white birch and 5 percent other intolerant hardwood species.

The distribution of poplar ranges from a low of 2.40 cubic metres per productive hectare on the Upper Miramichi License to a high of 10.94 cubic metres per productive hectare on the Upsalquitch License.

White birch merchantable volume ranges from 2.73 cubic metres per productive hectare on the Lower Miramichi License to 6.73 cubic metres per productive hectare on the Fundy License.

VOLUME - tree size

The volume of log size (26+ cm DBH) spruce on Crown Land is 39 049 403 cubic metres and ranges from 6.78 cubic metres per productive hectare on the Kent License to 20.37 cubic metres per productive hectare on the Upper Miramichi License.

The volume of log size (26+ cm DBH) balsam fir is 15 154 901 cubic metres ranging from 0.66 cubic metres per productive hectare on the Kent License to 13.19 cubic metres per productive hectare on the Restigouche-Tobique License.

The volume of log size (26+ cm DBH) cedar is 10 470 572 cubic metres ranging from a low of 1.28 cubic metres per productive hectare on the Fundy License to a high of 5.90 cubic metres per productive hectare on the Upsalquitch License.

The volume of log size (26+ cm DBH) white pine is 6 029 274 cubic metres with the highest concentration being 3.14 cubic metres per productive hectare on the Upsalquitch License.

The volume of log size (26+ cm DBH) tolerant hardwoods on Crown Land is 26 593 734 cubic metres and ranges from 2.96 cubic metres per productive hectare on the Kent License to 24.68 cubic metres per productive hectare on the Carleton License.

The volume of log size (26+ cm DBH) intolerant hardwoods is 12 257 906 cubic metres, ranging from 3.03 cubic metre per productive hectare on the Upper Miramichi License to 7.51 cubic metre per productive hectare on the Upsalquitch License.

DECAY/CULL SURVEY

Prior to 1981 decay/cull factors for the major coniferous species were based on the Provincial Crown Lands Decay Survey Report of 1969. These factors were used to estimate net merchantable volume (NMV) and useable merchantable volume (UMV) from gross merchantable volume (GMV). All decay/cull results were presented on a Province-wide basis by Ecoregions, as defined by Loucks. In 1980 some concerns were raised about the accuracy of these factors as they related to 1980 conditions.*

Due to the increasing maturity of New Brunswick's forest and the insect and disease damage prevalent in an "old" forest, the decay/cull factors generated in 1969 were thought to be outdated.

Also, subsequent to 1969, there have been changes to the Provincial Scaling regulations. Stain or incipient decay, a defect in the 1969 survey is no longer considered a defect, therefore is no longer considered as decay.

To accommodate these concerns, a decay/cull survey was conducted on Provincial Crown Land from 1981-86.

Method

The decay/cull survey was carried out on 342 permanent sample plot locations generated from the 1979 inventory. Plots were chosen in mature softwood and softwood/hardwood cover types. Two prism points (2BAF) were located at right angles to the centre line connecting the three permanent points and from the centre of two of these points.

All living and dead trees 9 cm diameter breast height (DBH) and larger were tallied by species and DBH. All living, single-stemmed spruce, balsam fir, jack pine and larch were felled at the stump then sectioned at breast height, again at two metres above the stump and thereafter at intervals of two metres to include a top diameter of 2 cm. The tree measurements collected provided data on small butt diameter (SBD), breast height diameter (DBH) and total length. Average inside bark diameter and single bark thickness were recorded for each section.

If decay occurred on a bolt face, a disc was cut from the bolt, the area of decay was outlined and labelled. If decay did not occur on either face of a bolt, it was assumed that the bolt was sound throughout. If decay occurred on both faces of the bolt it was assumed that the bolt was defective throughout its length. If decay occurred only on one face, the length of decay was determined by further cutting and splitting of the bolt section. Length of decay was recorded to the nearest centimetre. The area of decay for each disc was determined to the nearest tenth square centimetre by an electronic planimetre.

** Loucks, O.L. 1962. A Forest Classification of the Maritime Provinces, The Proceedings of the Nova Scotian Institute of Science. Vol. 25, Part 2, 1459-60*

Data Compilation

The average inside bark diameters at the ends of each bolt were converted to basal area and the volume for each bolt was computed using Smalian's formula. Total volume was calculated by summing the volumes of the individuals bolts. The gross merchantable volume (GMV) was the volume between a 0.15 m stump and a top of 8 cm. The net merchantable volume (NMV) of the tree was determined by subtracting the volume of decay from GMV. The decay factor was an expression of the volume of decay as a percentage of GMV.

Regulations under the New Brunswick Scalers Act state that any bolt having more than 50% of its volume in decay, is defined as a cull bolt. In other words the entire bolt is classified unmerchantable by defects. When decay is less than or equal to 50% of the volume of a bolt, decay and cull volume are equal. Therefore, the useable merchantable volume (UMV) of each tree was determined by subtracting the volume of decay and cull bolts from the GMV. The cull factor is an expression of the volume of all deductions as a percentage of the gross merchantable volume.

Although the 1981-86 decay/cull survey was sampled on an ecoregion basis plots were grouped on a license basis. A curvilinear regression weighted by frequency was used to construct the local volume tables. The cull factors for each license and the provincial average are presented by DBH and SBD. They were derived by expressing their curved values as a percent of the curved GMV. The estimating equation, standard error of estimate, and correlation coefficients are listed with each table.

In total 2 849 spruce, 2 550 balsam fir and 252 jack pine trees were used. Jack pine cull factors are presented on a provincial basis only, because of the small number of samples.

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Table C1. Area (ha) by land classification and license on Crown Land.

LAND	CROWN TIMBER LICENSE										TOTAL
CLASSIFICATION	UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
FOREST LAND											
Productive	365929	244616	288971	380598	62212	476565	360768	137203	128305	425561	2870728
Non-productive	1722	2983	5677	4555	3059	9765	8842	6277	848	5370	49098
TOTAL	367651	247599	294648	385153	65271	486330	369610	143480	129153	430931	2919826
CLEARED LAND											
Cultivated	16	565	529	8	17	383	117	105	54	94	1888
Occupied	6561	5904	3964	3775	561	5780	4903	1421	1286	5824	39979
TOTAL	6577	6469	4493	3783	578	6163	5020	1526	1340	5918	41867
WASTE LAND	8506	19484	30242	15215	6807	40103	30405	13872	4513	11634	180781
TOTAL LAND	382734	273552	329383	404151	72656	532596	405035	158878	135006	448483	3142474
WATER .	1936	2602	1833	5201	448	5818	5456	3877	640	1788	29599
TOTAL AREA	384670	276154	331216	409352	73104	538414	410491	162755	135646	450271	3172073

NEP includes 2942 ha of sugar maple and peat moss leases.
LOMIR includes 2135 ha of sugar maple and peat moss leases.
Q-C includes 926 ha of non-allocated crown land.
FUN includes 44 ha of non-allocated crown land.

Figure C1. Area distribution (%) by license on Crown Land.

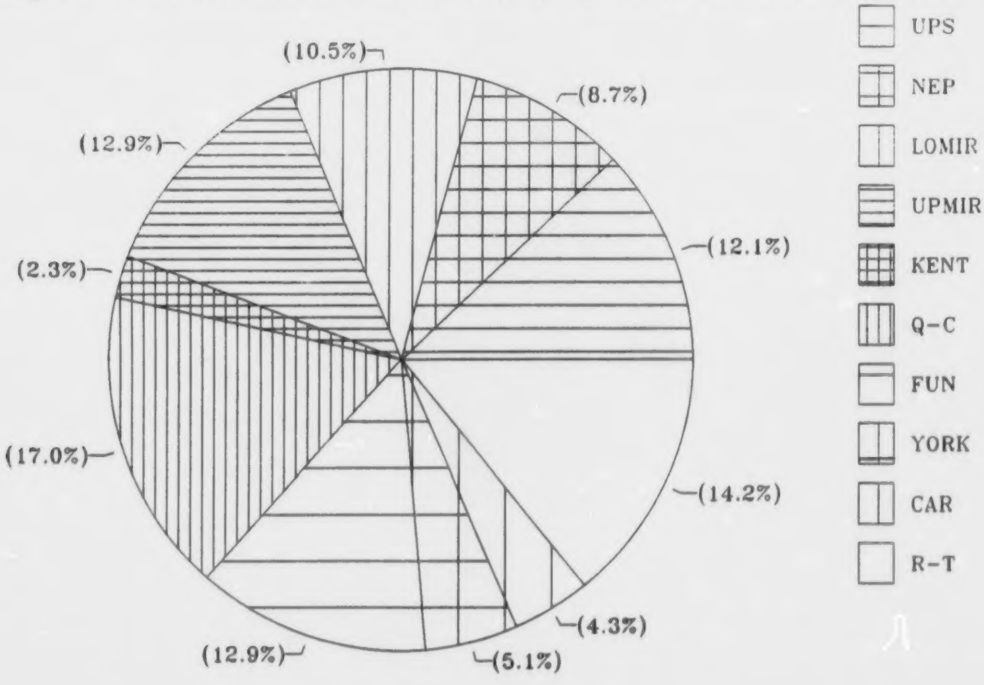


Table C2. Productive forest land (ha) by development stage and license on Crown Land.

DEVELOPMENT STAGE	CROWN TIMBER LICENSE										TOTAL
	UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
Regenerating	35170	17611	18544	17093	4732	31580	31341	6483	5223	35793	203570
Young	48185	19957	27572	23334	8191	19174	9254	638	7876	22431	186612
Immature	86489	71084	67413	54140	19840	99576	105989	49320	28268	127933	710052
Mature	146486	90892	119296	225730	19958	244421	159859	55550	63192	168041	1293425
Overmature	18768	11468	5018	14567	1138	5805	3981	1123	1389	21922	85179
TOTAL	335098	211012	237843	334864	53859	400556	310424	113114	105948	376120	2478838
Cuts	30236	30265	33313	42883	8182	72935	48261	23787	22130	47832	359824
Burns	519	3221	17762	2827	133	2988	1971	92	2	1367	30882
Fields	76	118	53	24	38	86	112	210	225	242	1184
TOTAL	30831	33604	51128	45734	8353	76009	50344	24089	22357	49441	391890
PRODUCTIVE FOREST LAND	365929	244616	288971	380598	62212	476565	360768	137203	128305	425561	2870728
Plantations	13290	13551	15362	10435	1654	24420	13626	4901	4480	13230	114949

Table C2a. Distibution of productive forest land (%) by development stage and license on Crown Land.

DEVELOPMENT STAGE	CROWN TIMBER LICENSE										TOTAL
	UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
Regenerating	1.23	.61	.65	.60	.16	1.10	1.09	.23	.18	1.25	7.09
Young	1.68	.70	.96	.81	.29	.67	.32	.02	.27	.78	6.50
Immature	3.01	2.48	2.35	1.89	.69	3.47	3.69	1.72	.98	4.46	24.73
Mature	5.10	3.17	4.16	7.86	.70	8.51	5.57	1.94	2.20	5.85	45.06
Overmature	.65	.40	.17	.51	.04	.20	.14	.04	.05	.76	2.97
TOTAL	11.67	7.35	8.29	11.66	1.88	13.95	10.81	3.94	3.69	13.10	86.35
Cuts	1.05	1.05	1.16	1.49	.29	2.54	1.68	.83	.77	1.67	12.53
Burns	.02	.11	.62	.10	.00	.10	.07	.00	.00	.05	1.08
Fields	.00	.00	.00	.00	.00	.00	.00	.01	.01	.01	.04
TOTAL	1.07	1.17	1.78	1.59	.29	2.65	1.75	.84	.78	1.72	13.65
PRODUCTIVE FOREST LAND	12.75	8.52	10.07	13.26	2.17	16.60	12.57	4.78	4.47	14.82	100.00
Plantations	.46	.47	.54	.36	.06	.85	.47	.17	.16	.46	4.00

Table C3. Area (ha) by cover type, development stage and license on Crown Land.

COVER	DEVELOPMENT					CROWN TIMBER LICENSE						TOTAL
TYPE	STAGE	UPS	NEP	LOWIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
S	Regenerating	4737	4369	7995	7079	1786	14167	23470	1230	288	2158	67279
	Young	10503	6950	13445	11671	5198	7087	6954	6	178	2800	64792
	Immature	28911	46066	45084	36930	10289	54396	52485	11012	4486	38575	328234
	Mature	97160	68747	83642	173656	10437	150677	80146	27812	29272	99418	820967
	Overmature	14508	10368	2894	11859	170	4077	2824	688	874	15708	63970
	TOTAL	155819	136500	153060	241195	27880	230404	165879	40748	35098	158659	1345242
SH	Regenerating	2090	1552	2103	1754	754	2421	1778	241	178	1634	14505
	Young	3406	961	1771	1513	814	772	671	8	94	2485	12495
	Immature	8457	5254	7594	3822	3539	8677	12970	7841	1644	13649	73447
	Mature	14579	9553	17449	28106	3492	29038	18955	12715	9099	23085	166071
	Overmature	1350	228	210	817	76	429	217	237	324	3006	6894
	TOTAL	29882	17548	29127	36012	8675	41337	34591	21042	11339	43859	273412
HS	Regenerating	5264	3166	2672	1712	910	4046	1810	369	654	9030	29633
	Young	5071	2769	2854	2170	1036	1567	639	5	198	5399	21708
	Immature	12227	7287	7053	4350	3708	9506	12856	11398	2898	23160	94443
	Mature	13411	6540	11826	15220	3229	27629	19604	8275	9650	22658	138042
	Overmature	1436	183	150	635	87	262	164	132	105	2260	5414
	TOTAL	37409	19945	24555	24087	8970	43010	35073	20179	13505	62507	289240
H	Regenerating	23079	8524	5774	6548	1282	10946	4283	4643	4103	22971	92153
	Young	29205	9277	9502	7980	1143	9748	990	619	7406	11747	87617
	Immature	36894	12477	7682	9038	2304	26997	27678	19069	19240	52549	213928
	Mature	21336	6052	6379	8748	2800	37077	41154	6748	15171	22880	168345
	Overmature	1474	689	1764	1256	805	1037	776	66	86	948	8901
	TOTAL	111988	37019	31101	33570	8334	85805	74881	31145	46006	111095	570944
ALL	Regenerating	35170	17611	18544	17093	4732	31580	31341	6483	5223	35793	203570
	Young	48185	19957	27572	23334	8191	19174	9254	638	7876	22431	186612
	Immature	86489	71084	67413	54140	19840	99576	105989	49320	28268	127933	710052
	Mature	146486	90892	119296	225730	19958	244421	159859	55550	63192	168041	1293425
	Overmature	18768	11468	5018	14567	1138	5805	3981	1123	1389	21922	85179
	TOTAL	335098	211012	237843	334864	53859	400556	310424	113114	105948	376120	2478838

Table C3a. Area distribution (%) by cover type, development stage and license on Crown Land.

COVER TYPE	DEVELOPMENT STAGE	CROWN TIMBER LICENSE										TOTAL
		UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
S	Regenerating	.19	.18	.32	.29	.07	.57	.95	.05	.01	.09	2.71
	Young	.42	.28	.54	.47	.21	.29	.28	.00	.01	.11	2.61
	Immature	1.17	1.86	1.82	1.49	.42	2.19	2.12	.44	.18	1.56	13.24
	Mature	3.92	2.77	3.37	7.01	.42	6.08	3.23	1.12	1.18	4.01	33.12
	Overmature	.59	.42	.12	.48	.01	.16	.11	.03	.04	.63	2.58
	TOTAL	6.29	5.51	6.17	9.73	1.12	9.29	6.69	1.64	1.42	6.40	54.27
SH	Regenerating	.08	.06	.08	.07	.03	.10	.07	.01	.01	.07	.59
	Young	.14	.04	.07	.06	.03	.03	.03	.00	.00	.10	.50
	Immature	.34	.21	.31	.15	.14	.35	.52	.32	.07	.55	2.96
	Mature	.59	.39	.70	1.13	.14	1.17	.76	.51	.37	.93	6.70
	Overmature	.05	.01	.01	.03	.00	.02	.01	.01	.01	.12	.28
	TOTAL	1.21	.71	1.18	1.45	.35	1.67	1.40	.85	.46	1.77	11.03
HS	Regenerating	.21	.13	.11	.07	.04	.16	.07	.01	.03	.36	1.20
	Young	.20	.11	.12	.09	.04	.06	.03	.00	.01	.22	.88
	Immature	.49	.29	.28	.18	.15	.38	.52	.46	.12	.93	3.81
	Mature	.54	.26	.48	.61	.13	1.11	.79	.33	.39	.91	5.57
	Overmature	.06	.01	.01	.03	.00	.01	.01	.01	.00	.09	.22
	TOTAL	1.51	.80	.99	.97	.36	1.74	1.41	.81	.54	2.52	11.67
H	Regenerating	.93	.34	.23	.26	.05	.44	.17	.19	.17	.93	3.72
	Young	1.18	.37	.38	.32	.05	.39	.04	.02	.30	.47	3.53
	Immature	1.49	.50	.31	.36	.09	1.09	1.12	.77	.78	2.12	8.63
	Mature	.86	.24	.26	.35	.11	1.50	1.66	.27	.61	.92	6.79
	Overmature	.06	.03	.07	.05	.03	.04	.03	.00	.00	.04	.36
	TOTAL	4.52	1.49	1.25	1.35	.34	3.46	3.02	1.26	1.86	4.48	23.03
ALL	Regenerating	1.42	.71	.75	.69	.19	1.27	1.26	.26	.21	1.44	8.21
	Young	1.94	.81	1.11	.94	.33	.77	.37	.03	.32	.90	7.53
	Immature	3.49	2.87	2.72	2.18	.80	4.02	4.28	1.99	1.14	5.16	28.64
	Mature	5.91	3.67	4.81	9.11	.81	9.86	6.45	2.24	2.55	6.78	52.18
	Overmature	.76	.46	.20	.59	.05	.23	.16	.05	.06	.88	3.44
	TOTAL	13.52	8.51	9.59	13.51	2.17	16.16	12.52	4.56	4.27	15.17	100.00

Figure C2a. Area distribution (%) by land classification.

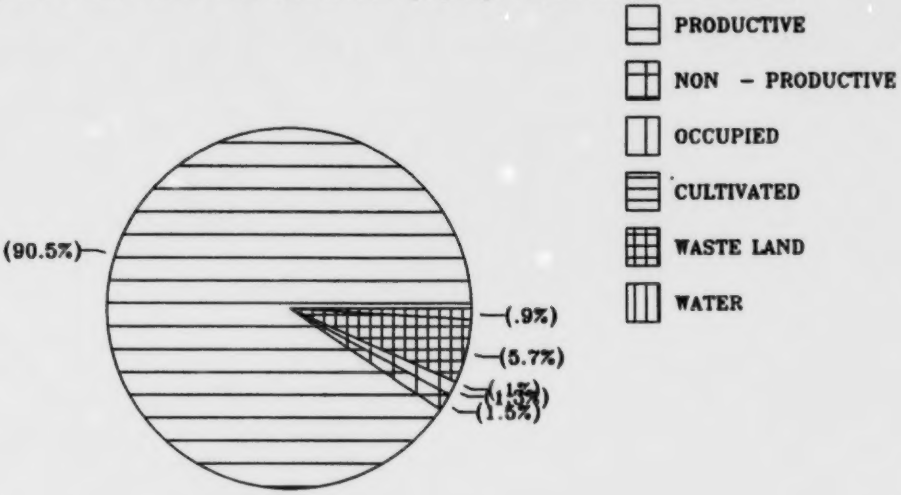


Figure C2b. Area distribution (%) by development stage.

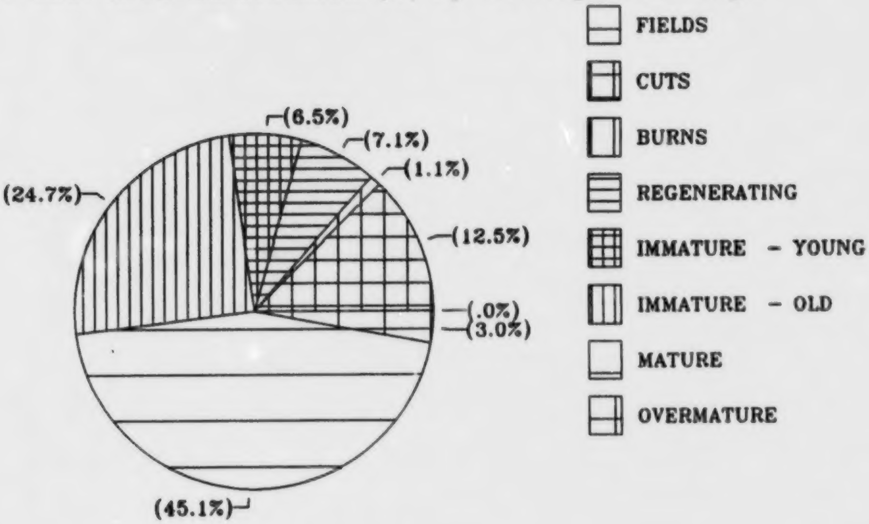


Figure C2c. Area distribution (%) by cover type.

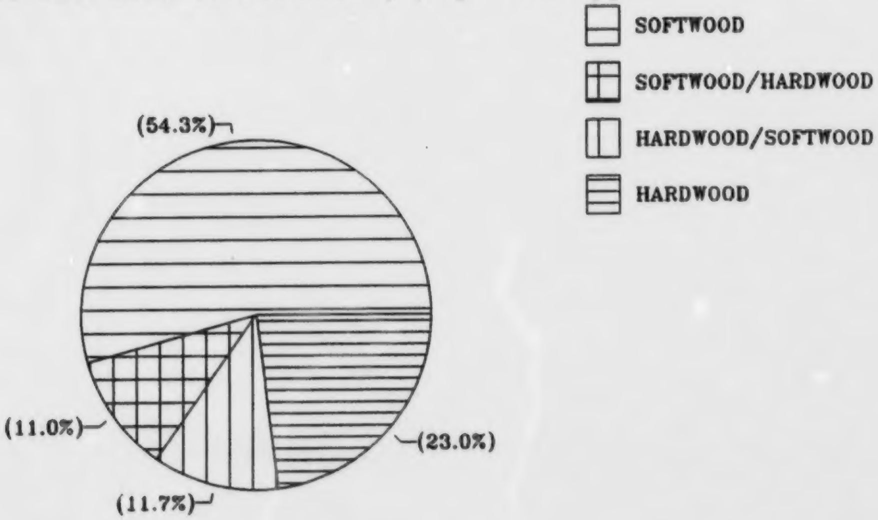


Table C4. Area (ha) by cover type, forest unit and development stage on Crown Land.

COVER	FOREST	DEVELOPMENT STAGE					TOTAL	PERCENT
TYPE	UNIT	Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	41134	38425	229647	426034	25540	760780	30.69
	BFSP	19897	13465	53740	276714	18071	381887	15.41
	PINE	5151	10282	29844	35086	1022	81385	3.28
	PSSP	606	1579	8820	31589	3154	45748	1.85
	OTSW	491	1041	6183	51544	16183	75442	3.04
	TOTAL	67279	64792	328234	820967	63970	1345242	54.27
SH	SPTH	1857	1874	27860	73661	1598	106850	4.31
	SPIH	3396	3563	23117	28488	1043	59607	2.40
	BFTH	3094	2549	11848	43659	2787	63937	2.58
	BFIH	6158	4509	10622	20263	1466	43018	1.74
	TOTAL	14505	12495	73447	166071	6894	273412	11.03
HS	THSP	2118	2833	27688	53592	587	86818	3.50
	IHSP	6521	5070	31628	34753	1723	79695	3.22
	THBF	3766	4070	16653	32642	1931	59062	2.38
	IHBF	17228	9735	18474	17055	1173	63665	2.57
	TOTAL	29633	21708	94443	138042	5414	289240	11.67
H	TOHW	18130	46859	118086	83597	1076	267748	10.80
	THIH	13251	10033	20315	13295	101	56995	2.30
	INHW	43956	22186	57309	54138	7483	185072	7.47
	IHTH	16816	8539	18218	17315	241	61129	2.47
	TOTAL	92153	87617	213928	168345	8901	570944	23.03
ALL COVER TYPES	TOTAL	203570	186612	710052	1293425	85179	2478838	100.00
ALL COVER TYPES	PERCENT	8.21	7.53	28.64	52.18	3.44	100.00	

Figure C3. Area by cover type and development stage.

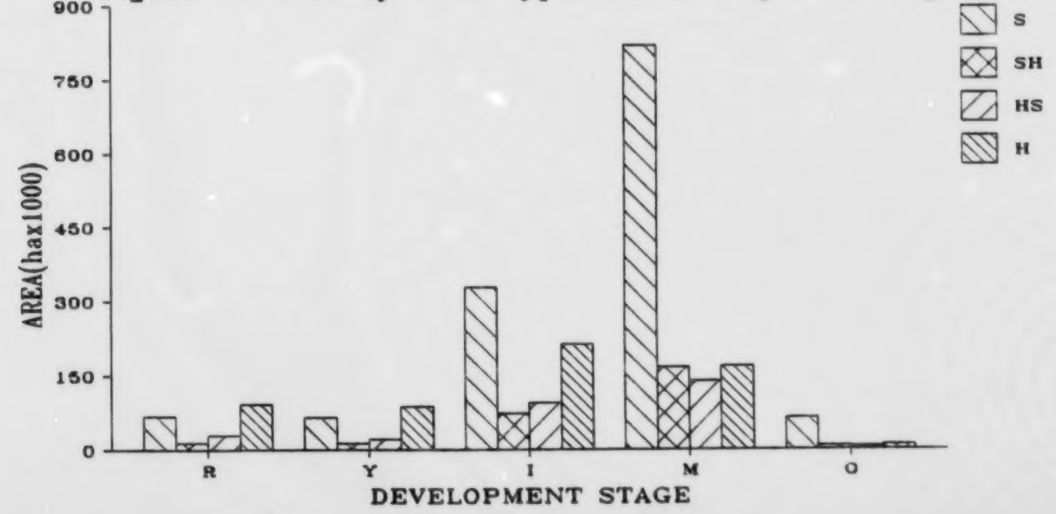


Table C5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on Crown Land.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	2318831	26416283	56710697	3600578	89046389	28.88
		HW	197109	2297882	4764748	293045	7552784	2.45
	BFSP	SW	1138808	6866794	41668045	2588656	52262303	16.95
		HW	161892	972283	5273572	340959	6748706	2.19
	PINE	SW	805213	3843594	5365429	127186	10141422	3.29
		HW	41989	229798	256883	2318	530988	.17
	PSSP	SW	54552	511558	2123334	187852	2877296	.93
		HW	1945	17046	50202	0	69193	.02
	OTSW	SW	76537	721661	7411255	2969761	11179214	3.63
		HW	5135	71645	681059	148346	906185	.29
SH	SPTH	SW	76432	2607621	7607721	176576	10468350	3.40
		HW	47298	1121883	3494698	118783	4782662	1.55
	SPIH	SW	136494	1968770	2483319	112604	4701187	1.52
		HW	65256	842534	1201735	53432	2162957	.70
	BFTH	SW	191426	1142621	4279659	304656	5918362	1.92
		HW	62767	445732	2015226	147019	2670744	.87
	BFIH	SW	322113	1199072	2249825	126148	3897158	1.26
		HW	59292	270749	801866	44369	1176276	.38
HS	THSP	SW	178910	1916701	4226858	25610	6348079	2.06
		HW	92931	1765891	3942482	43598	5844902	1.90
	IHSP	SW	253531	1750902	2170462	91887	4266782	1.38
		HW	211269	2031456	2252011	131317	4626053	1.50
	THBF	SW	289678	972747	2439559	104307	3806291	1.23
		HW	165390	966587	2326428	137969	3596374	1.17
	IHBF	SW	620812	1527150	1059047	78238	3285247	1.07
		HW	367701	952694	1122764	77875	2521034	.82
H	TOHW	SW	1837115	3486046	2836047	52318	8211526	2.66
		HW	3756590	11135426	8090084	114662	23096762	7.49
	THIH	SW	403599	798565	507685	4231	1714080	.56
		HW	563828	1439731	1139550	7570	3150679	1.02
	INHW	SW	952486	1719473	1762993	469209	4904161	1.59
		HW	619435	4866089	4770387	650419	10906330	3.54
	INTH	SW	448204	694500	382067	5322	1530093	.50
		HW	361106	1348707	1693238	23842	3426893	1.11

Table C5a. Gross merchantable volume (m3) by cover type, species class, and development stage on Crown Land.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	4393941	38359890	113278760	9474033	165506624	53.68
	HW	408070	3588654	11026464	784668	15807856	5.13
	TOTAL	4802011	41948544	124305224	10258701	181314480	58.81
SH	SW	726465	6918084	16620524	719984	24985057	8.10
	HW	234613	2680898	7513525	363603	10792639	3.50
	TOTAL	961078	9598982	24134049	1083587	35777696	11.60
HS	SW	1342931	6167500	9895926	300042	17706399	5.74
	HW	837291	5716628	9643685	390759	16588363	5.38
	TOTAL	2180222	11884128	19539611	690801	34294762	11.12
H	SW	3641404	6698584	5488792	531080	16359860	5.31
	HW	5300959	18789953	15693259	796493	40580664	13.16
	TOTAL	8942363	25488537	21182051	1327573	56940524	18.47
ALL COVER TYPES	SW	10104741	58144058	145284002	11025139	224557940	72.83
	HW	6780933	30776133	43876933	2335523	83769522	27.17
	TOTAL	16885674	88920191	189160935	13360662	308327462	100.00
ALL COVER TYPES (%)	SW	3.28	18.86	47.12	3.58	72.83	
	HW	2.20	9.98	14.23	.76	27.17	
	TOTAL	5.48	28.84	61.35	4.33	100.00	

Table C6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on Crown Land.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	60	115	133	141	124
		HW	5	10	11	11	10
	BFSP	SW	85	128	151	143	144
		HW	12	18	19	19	19
	PINE	SW	78	129	153	124	133
		HW	4	8	7	2	7
	PSSP	SW	35	58	67	60	64
		HW	1	2	2	0	2
	OTSW	SW	74	117	144	184	149
		HW	5	12	13	9	12
SH	SPTH	SW	41	94	103	110	100
		HW	25	40	47	74	46
	SPIH	SW	38	85	87	108	84
		HW	18	36	42	51	38
	BFTH	SW	75	96	98	109	97
		HW	25	38	46	53	44
	BFIH	SW	71	113	111	86	106
		HW	13	25	40	30	32
HS	THSP	SW	63	69	79	44	75
		HW	33	64	74	74	69
	IHSP	SW	50	55	62	53	58
		HW	42	64	65	76	63
	THBF	SW	71	58	75	54	69
		HW	41	58	71	71	65
	IHBF	SW	64	83	62	67	71
		HW	38	52	66	66	54
H	TOHW	SW	39	30	34	49	33
		HW	80	94	97	107	93
	THIH	SW	40	39	38	42	39
		HW	56	71	86	75	72
	INHW	SW	43	30	33	63	35
		HW	28	85	88	87	77
	INTH	SW	52	38	22	22	35
		HW	42	74	98	99	77

Table C7. Gross merchantable volume (m3) by species and development stage on Crown Land.

SPECIES	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
Spruce	4115173	30711889	73995202	4632859	113455123	36.80
Balsam Fir	4248083	17832960	48368139	3357929	73807111	23.94
Jack Pine	728483	2888253	3348098	82860	7047694	2.29
Red Pine	24428	456577	712353	3986	1197344	.39
White Pine	385600	2418795	4075644	290211	7170250	2.33
Cedar	355468	2761118	12129550	2588494	17834630	5.78
Hemlock	143525	470090	1487071	45878	2146564	.70
Larch	103981	604376	1167945	22922	1899224	.62
TOTAL SOFTWOOD	10104741	58144058	145284002	11025139	224557940	72.83
Red Maple	1145367	7229736	14209226	489513	23073842	7.48
Sugar Maple	1439896	5545349	6133291	219110	13337646	4.33
Yellow Birch	747470	3577096	6423726	465245	11213537	3.64
Beech	1008753	2595488	2043741	86942	5734924	1.86
Other Tolerant	7208	78454	82297	3888	171848	.06
Total Tolerant	4348694	19026123	28892281	1264698	53531797	17.36
White Birch	889812	4498430	8295711	419174	14103127	4.57
Poplar	1436120	6565151	5974438	596528	14572237	4.73
Other Intolerant	106307	686429	714503	55123	1562361	.51
Total Intolerant	2432239	11750010	14984652	1070825	30237725	9.81
TOTAL HARDWOOD	6780933	30776133	43876933	2335523	83769522	27.17
TOTAL ALL SPECIES	16885674	88920191	189160935	13360662	308327462	100.00
PERCENT	5.48	28.84	61.35	4.33	100.00	

Table C7a. Gross merchantable volume (m3) by license, species class and development stage on Crown Land.

LICENSE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
UPSALQUITCH	Softwood	2939834	6736448	16289121	2613579	28578982	9.27
	Hardwood	2363216	4777011	6318948	506413	13965588	4.53
	Total	5303050	11513459	22608069	3119992	42544570	13.80
NEPISIGUIT	Softwood	895526	7107451	11197053	1461481	20661511	6.70
	Hardwood	572162	2086370	2506393	178325	5343250	1.73
	Total	1467688	9193821	13703446	1639806	26004761	8.43
LOWER MIRAMICHI	Softwood	1489657	6622892	13131671	591713	21835933	7.08
	Hardwood	545695	1521351	3165751	207167	5439964	1.76
	Total	2035352	8144243	16297422	798880	27275897	8.85
UPPER MIRAMICHI	Softwood	1177074	5998190	31327302	1863548	40366114	13.09
	Hardwood	688970	1456993	4502812	257647	6906422	2.24
	Total	1866044	7455183	35830114	2121195	47272536	15.33
KENT	Softwood	502000	1349645	1557865	74037	3483547	1.13
	Hardwood	121818	583683	703799	86960	1496260	.49
	Total	623818	1933328	2261664	160997	4979807	1.62
QUEENS-CHARLOTTE	Softwood	855865	7049340	25142048	709294	33756547	10.95
	Hardwood	902259	3706546	8347333	195321	13151459	4.27
	Total	1758124	10755886	33489381	904615	46908006	15.21
FUNDY	Softwood	456497	7743924	12806228	456348	21462997	6.96
	Hardwood	135368	4414125	7089753	143777	11783023	3.82
	Total	591865	12158049	19895981	600125	33246020	10.78
YORK	Softwood	22999	3427120	6043797	141355	9635271	3.13
	Hardwood	57618	3168450	2378288	54624	5658980	1.84
	Total	80617	6595570	8422085	195979	15294251	4.96
CARLETON	Softwood	230179	1389743	6855626	166190	8641738	2.80
	Hardwood	737741	2281857	3263237	48760	6331595	2.05
	Total	967920	3671600	10118863	214950	14973333	4.86
RESTIGOUCHE-TOBIQUE	Softwood	1535110	10719305	20933291	2947594	36135300	11.72
	Hardwood	656086	6779747	5600619	656529	13692981	4.44
	Total	2191196	17499052	26533910	3604123	49828281	16.16
ALL LICENSES	Softwood	10104741	58144058	145284002	11025139	224557940	72.83
	Hardwood	6780933	30776133	43876933	2335523	83769522	27.17
	Total	16885674	88920191	189160935	13360662	308327462	100.00

Figure C4a. Total volume by species class and development.

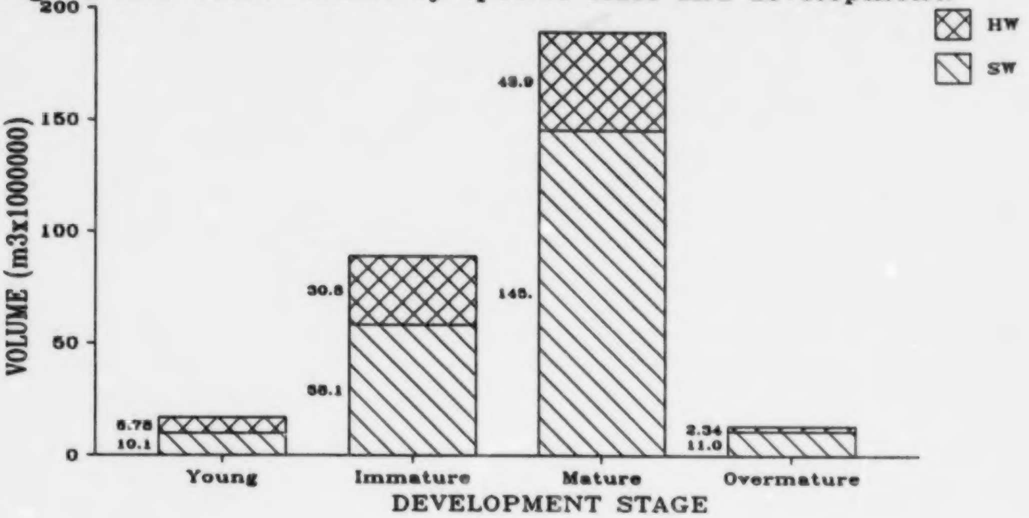


Figure C4b. Volume per ha by species class and development.

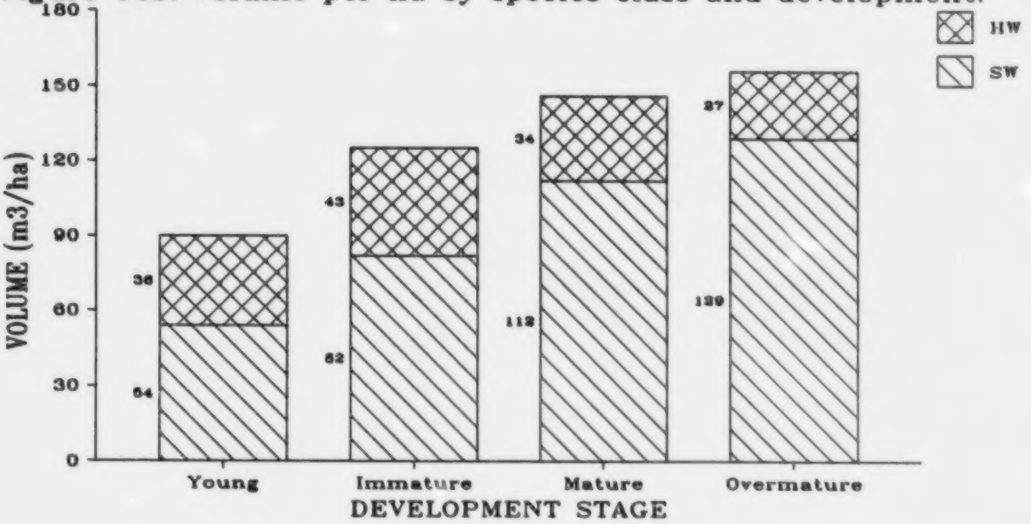


Figure C4c. Total area (hax1000) by development stage.

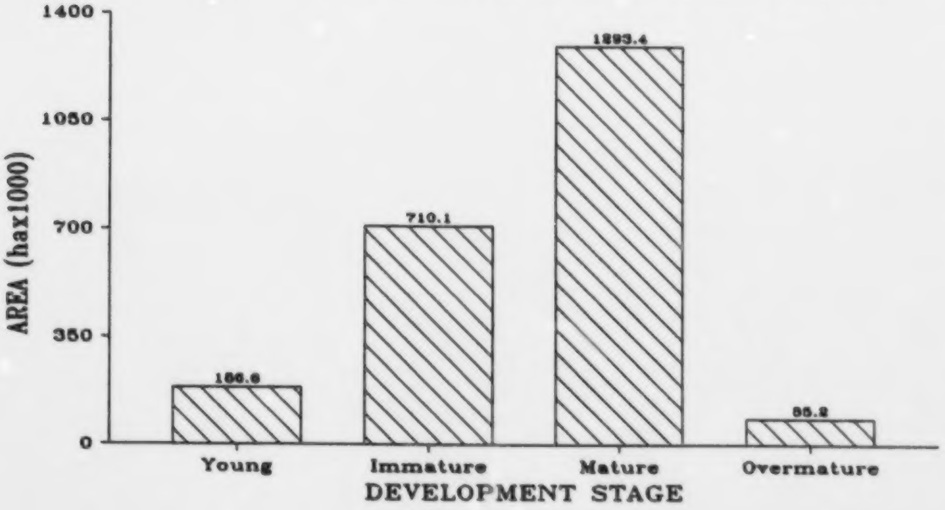


Table C8. Gross merchantable volume (m3) by species and DBH class (cm) on Crown Land.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	20997711	53408010	39049403	113455123	36.80
Balsam Fir	17405812	41246398	15154901	73807111	23.94
Jack Pine	1195468	4027253	1824973	7047694	2.29
Red Pine	39366	310663	847315	1197344	.39
White Pine	231828	909148	6029274	7170250	2.33
Cedar	1464231	5899826	10470572	17834630	5.78
Hemlock	64365	372617	1709582	2146564	.70
Larch	421359	892779	585086	1899224	.62
TOTAL SOFTWOOD	41820140	107066693	75671107	224557940	72.83
Red Maple	4961614	10001655	8110574	23073842	7.48
Sugar Maple	1603405	3637876	8096365	13337646	4.33
Yellow Birch	857480	2611931	7744127	11213537	3.64
Beech	1137052	2040785	2557087	5734924	1.86
Other Tolerant	28571	57695	85582	171848	.06
Total Tolerant	8588121	18349942	26593734	53531797	17.36
White Birch	3722873	6527537	3852717	14103127	4.57
Poplar	1525186	5098856	7948195	14572237	4.73
Other Intolerant	614381	490986	456994	1562361	.51
Total Intolerant	5862440	12117379	12257906	30237725	9.81
TOTAL HARDWOOD	14450561	30467320	38851641	83769522	27.17
TOTAL ALL SPECIES	56270701	137534014	114522747	308327462	100.00
PERCENT	18.25	44.61	37.14	100.00	

Figure C5. Volume by species class and DBH class.

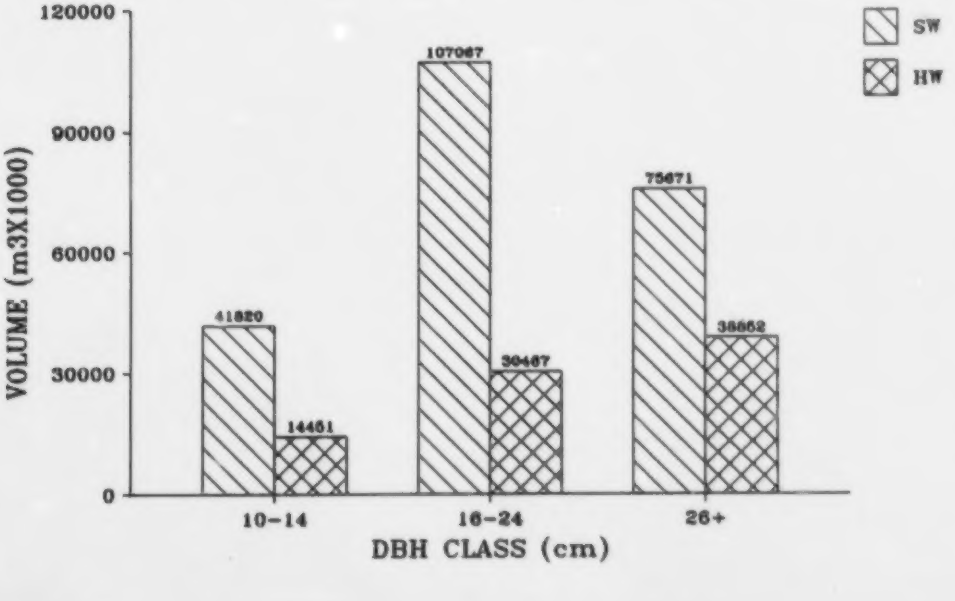


Table C8a. Gross merchantable volume (m3) by license, species class and DBH class (cm) on Crown Land.

LICENSE	SPECIES CLASS	DBH CLASS 10-14	16-24	26+	TOTAL	PERCENT
UPSALQUITCH	Softwood	5461978	12809917	10307087	28578982	9.27
	Hardwood	2575280	4609104	6781204	13965588	4.53
	Total	8037258	17419021	17088291	42544570	13.80
NEPISIGUIT	Softwood	4709514	10459871	5492126	20661511	6.70
	Hardwood	1255216	1971421	2116613	5343250	1.73
	Total	5964731	12431292	7608739	26004761	8.43
LOWER MIRAMICHI	Softwood	4594600	10339320	6902013	21835933	7.08
	Hardwood	992995	1974506	2472463	5439964	1.76
	Total	5587595	12313826	9374476	27275897	8.85
UPPER MIRAMICHI	Softwood	7461760	20353070	12551284	40366114	13.09
	Hardwood	1379357	2361216	3165849	6906422	2.24
	Total	8841118	22714286	15717132	47272536	15.33
KENT	Softwood	944294	1717672	821580	3483547	1.13
	Hardwood	303374	652681	540205	1496260	.49
	Total	1247668	2370354	1361785	4979807	1.62
QUEENS-CHARLOTTE	Softwood	5281888	14633254	13841406	33756547	10.95
	Hardwood	1906317	5180187	6064956	13151459	4.27
	Total	7188204	19813440	19906361	46908006	15.21
FUNDY	Softwood	4414572	10616343	6432082	21462997	6.96
	Hardwood	2339364	4885826	4557833	11783023	3.82
	Total	6753936	15502169	10989915	33246020	10.78
YORK	Softwood	1483190	4266063	3886018	9635271	3.13
	Hardwood	794081	2118311	2746588	5658980	1.84
	Total	2277270	6384374	6632607	15294251	4.96
CARLETON	Softwood	1229417	3826588	3585733	8641738	2.80
	Hardwood	698022	2029096	3604477	6331595	2.05
	Total	1927439	5855684	7190210	14973333	4.86
RESTIGOUCHE-TOBIQUE	Softwood	6316391	18069151	11749758	36135300	11.72
	Hardwood	2211615	4671689	6809677	13692981	4.44
	Total	8528007	22740839	18559435	49828281	16.16
ALL LICENSES	Softwood	41820140	107066693	75671107	224557940	72.83
	Hardwood	14450561	30467320	38851641	83769522	27.17
	Total	56270701	137534014	114522747	308327462	100.00

Table C9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Provincial Crown Land.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	1.38	10	1.35	10	3.67	10	3.61
12	1.48	12	1.44	12	3.81	12	3.78
14	1.62	14	1.55	14	4.03	14	4.01
16	1.79	16	1.69	16	4.34	16	4.30
18	1.99	18	1.86	18	4.73	18	4.64
20	2.23	20	2.05	20	5.21	20	5.03
22	2.51	22	2.27	22	5.78	22	5.48
24	2.82	24	2.51	24	6.42	24	5.99
26	3.17	26	2.78	26	7.16	26	6.55
28	3.55	28	3.08	28	7.97	28	7.17
30	3.97	30	3.41	30	8.88	30	7.84
32	4.42	32	3.76	32	9.86	32	8.57
34	4.91	34	4.14	34	10.94	34	9.35
36	5.43	36	4.54	36	12.09	36	10.19
38	5.99	38	4.97	38	13.33	38	11.08
40	6.59	40	5.43	40	14.66	40	12.03
42	7.22	42	5.92	42	16.07	42	13.03
44	7.88	44	6.43	44	17.56	44	14.09
46	8.58	46	6.97	46	19.14	46	15.21
48	9.32	48	7.53	48	20.81	48	16.38
50	10.09	50	8.12	50	22.56	50	17.60

%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)	%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)
C0=1.4171564	C0=1.3292255	C0=4.2398006	C0=3.5754840
C1=-.0478104	C1=-.0308109	C1=-.1631481	C1=-.0656987
C2= .004425	C2= .0033337	C2= .010589	C2= .0069254
	R= .9073		R= .9391

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	1.49	10-14	1.45	10-14	3.84	10-14	3.80
16-24	2.27	16-24	2.08	16-24	5.30	16-24	5.09
26+	6.24	26+	5.16	26+	13.93	26+	11.47
ALL	4.62	ALL	3.90	ALL	10.43	ALL	8.85

Table C9a. Jack Pine cull factors (%) by DBH (cm) and SBD (cm)
Provincial Crown Land.

JACK PINE			
DBH(cm)	%CULL	SBD(cm)	%CULL
10	.30	10	.08
12	.78	12	.56
14	1.24	14	1.02
16	1.66	16	1.44
18	2.05	18	1.84
20	2.41	20	2.20
22	2.73	22	2.53
24	3.02	24	2.84
26	3.29	26	3.11
28	3.52	28	3.36
30	3.71	30	3.57
32	3.88	32	3.75
34	4.01	34	3.91
36	4.11	36	4.03
38	4.18	38	4.12
40	4.22	40	4.18
42	4.23	42	4.22
44	4.20	44	4.22
46	4.14	46	4.19
48	4.05	48	4.14
50	3.93	50	4.05

%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)
C0=-2.6118395	C0=-2.7988978
C1= .3309125	C1= .3252602
C2= -.0040028	C2= -.0037669
	R= .3287

DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	.77	10-14	.55
16-24	2.37	16-24	2.17
26+	3.96	26+	3.91
ALL	3.13	ALL	3.02

Table C10a. Distribution of FDS plots in the Immature-Young development stage by FUNA and license on Crown Land.

FUNA	CROWN TIMBER LICENSE										TOTAL
	UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
SPBF	9	9	18	18	33	11	10	0	0	3	111
BFSP	20	3	3	5	3	4	1	0	0	7	46
PINE	3	5	9	7	7	2	0	0	0	0	33
PSSP	0	0	2	0	4	0	0	0	0	0	6
OTSW	0	0	1	0	0	0	1	0	0	0	2
SPTH	0	2	2	0	2	1	0	0	0	0	7
SPIH	1	1	4	0	4	1	0	0	0	1	12
BFTH	6	4	1	0	3	1	0	0	0	1	16
BFIH	6	2	1	2	0	0	1	0	0	2	14
THSP	2	2	0	2	3	1	0	0	0	0	10
IHSP	3	4	4	1	2	0	0	0	0	1	15
THBF	3	5	3	0	0	2	0	0	0	0	13
IHBF	10	6	2	1	1	0	1	0	1	7	29
TOHW	31	10	10	11	3	20	1	0	26	2	114
THIH	17	4	8	1	1	5	0	0	7	2	45
INHW	12	10	5	2	5	0	1	0	1	12	48
IHTH	10	15	2	1	2	1	0	0	3	2	36
TOTAL	133	82	75	51	73	49	16	0	38	40	557

Table C10b. Distribution of FDS plots in the Immature-Old development stage by FUNA and license on Crown Land.

FUNA	CROWN TIMBER LICENSE										TOTAL
	UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
SPBF	19	135	118	104	59	133	172	132	38	15	925
BFSP	28	30	8	8	3	12	20	16	7	79	211
PINE	4	21	28	6	15	15	18	10	3	0	120
PSSP	0	0	4	0	7	7	2	0	0	1	21
OTSW	0	5	3	2	3	6	5	14	5	0	43
SPTH	1	12	8	4	22	22	30	64	7	0	170
SPIH	6	9	4	5	5	7	22	20	5	11	94
BFTH	8	7	7	1	3	2	4	9	1	9	51
BFIH	8	5	3	0	4	7	7	0	5	15	54
THSP	7	6	8	2	10	13	22	65	18	1	152
IHSP	10	12	10	2	10	14	11	46	13	8	136
THBF	5	8	1	6	6	2	4	1	2	19	54
IHBF	6	20	1	1	5	7	7	3	2	14	66
TOHW	40	30	14	17	5	54	39	91	81	64	435
THIH	5	10	3	4	7	15	9	24	11	9	97
INHW	36	23	10	2	10	23	29	33	15	17	198
IHTH	6	6	3	1	5	7	12	14	7	7	68
TOTAL	189	339	233	165	179	346	413	542	220	269	2895

Table C10c. Distribution of FDS plots in the Mature development stage by FUNA and license on Crown Land.

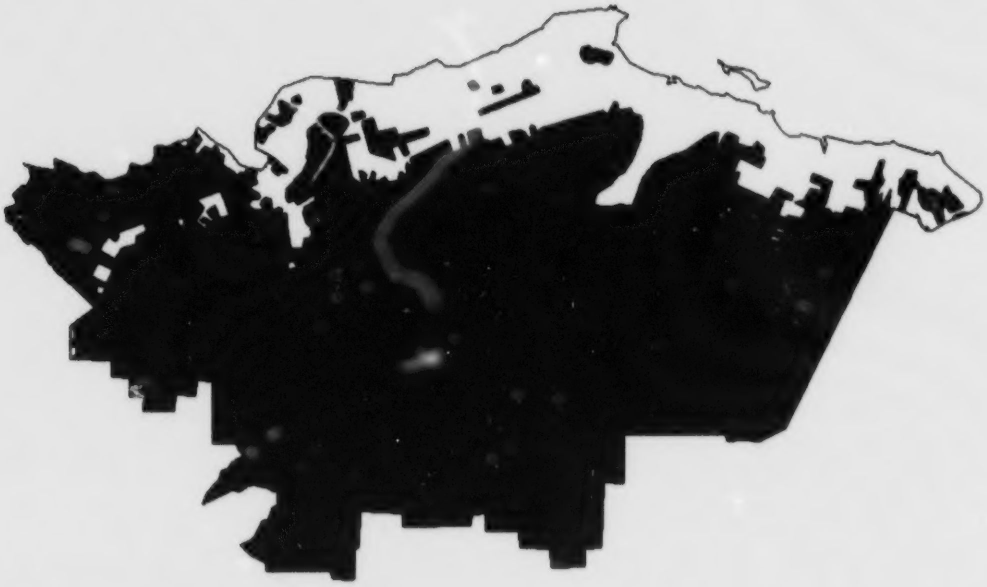
FUNA	CROWN TIMBER LICENSE										TOTAL
	UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
SPBF	33	105	162	216	61	330	164	94	129	63	1357
BFSP	176	140	18	145	2	55	2	7	50	303	898
PINE	9	11	20	12	2	19	21	4	0	0	98
PSSP	0	1	5	5	4	20	21	11	13	3	83
OTSW	8	14	17	10	22	47	4	75	40	1	238
SPTH	3	4	28	34	19	77	33	56	36	2	292
SPIH	3	6	5	8	8	24	15	13	4	7	93
BFTH	22	33	10	18	6	17	2	8	24	41	181
BFIH	10	3	3	15	2	4	1	2	4	23	67
THSP	4	1	20	14	3	41	33	44	26	2	188
IHSP	3	3	8	4	10	20	14	20	6	4	92
THBF	19	11	1	8	2	2	3	0	14	39	99
IHBF	6	4	5	7	8	3	4	0	3	15	55
TOHW	32	19	4	16	2	38	30	22	40	22	225
THIH	3	1	1	1	3	14	7	9	2	5	46
INHW	10	10	14	8	19	51	44	12	11	13	192
IHTH	2	0	1	0	5	12	15	10	1	0	46
TOTAL	343	366	322	521	178	774	413	387	403	543	4250

Table C10d. Distribution of FDS plots in the Overmature development stage by FUNA and license on Crown Land.

FUNA	CROWN TIMBER LICENSE										TOTAL
	UPS	NEP	LOMIR	UPMIR	KENT	Q-C	FUN	YORK	CAR	R-T	
SPBF	6	9	4	13	0	5	9	5	3	17	71
BFSP	10	10	0	4	0	1	0	1	0	25	51
PINE	1	1	0	0	0	0	1	0	0	0	3
PSSP	0	2	0	0	0	0	1	0	0	2	5
OTSW	14	6	2	2	2	2	0	0	1	5	34
SPTH	0	1	1	2	1	1	1	1	0	0	8
SPIH	1	1	0	0	0	0	0	0	0	0	2
BFTH	4	0	0	0	0	0	0	0	0	5	9
BFIH	0	0	0	0	0	0	0	0	0	4	4
THSP	0	0	0	0	0	2	0	0	1	0	3
INSP	4	0	1	0	0	0	0	0	0	0	5
THBF	2	0	0	0	0	0	0	0	0	3	5
INBF	1	0	0	0	0	0	0	0	0	0	1
TOHW	2	0	0	0	0	0	0	0	0	2	4
THIH	0	0	0	0	0	0	0	0	0	0	0
INHW	3	3	7	5	9	1	2	0	0	1	31
INTH	0	0	0	0	0	0	0	0	0	0	0
TOTAL	48	33	15	26	12	12	14	7	5	64	236

UPSALQUITCH LICENSE

■ Crown Land



The Upsalquitch License is located in the northern part of the province and encompasses the Upsalquitch, Jacquet, Restigouche, and Charlo River watersheds. Approximately 47 percent of the license is covered by a coniferous forest, predominantly of balsam fir and spruce, 33 percent is deciduous and 20 percent is covered by a mixed-forest. Approximately 40 percent of productive forest land is in the mature development stage. Balsam fir and spruce make up 56 percent of the total merchantable volume on the license. Other predominant species by merchantable volume include poplar, cedar, red and sugar maple, white pine and white birch. Approximately 41 percent of the merchantable volume is in the 16-24 cm DBH size class, 40 percent is in the 26+ cm DBH range and 19 percent is in the 10-14 cm DBH class.

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Table UPS4. Area (ha) by cover type, forest unit and development stage on the Upsalquitch License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE					TOTAL	PERCENT
		Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	1423	2951	11251	15171	4098	34894	10.41
	BFSP	3278	7093	16987	74466	4092	105916	31.61
	PINE	33	427	447	3016	546	4469	1.33
	PSSP	0	21	33	226	53	333	.10
	OTSW	3	11	193	4281	5719	10207	3.05
	TOTAL	4737	10503	28911	97160	14508	155819	46.50
SH	SPTH	81	409	597	734	82	1903	.57
	SPIH	241	389	2607	916	370	4523	1.35
	BFTH	428	940	3277	10099	787	15531	4.63
	BFIH	1340	1668	1976	2830	111	7925	2.36
	TOTAL	2090	3406	8457	14579	1350	29882	8.92
HS	THSP	140	335	781	848	12	2116	.63
	IHSP	807	753	4285	714	860	7419	2.21
	THBF	1017	1567	3435	8459	257	14735	4.40
	IHBF	3300	2416	3726	3390	307	13139	3.92
	TOTAL	5264	5071	12227	13411	1436	37409	11.16
H	TOHW	7135	18128	18116	14912	237	58528	17.47
	THIH	4521	4151	1582	708	0	10962	3.27
	INHW	7086	3815	15395	5169	1229	32694	9.76
	IHTH	4337	3111	1801	547	8	9804	2.93
	TOTAL	23079	29205	36894	21336	1474	111988	33.42
ALL COVER TYPES	TOTAL	35170	48185	86489	146486	18768	335098	100.00
ALL COVER TYPES	PERCENT	10.50	14.38	25.81	43.71	5.60	100.00	

Figure UPS3. Area by cover type and development stage.

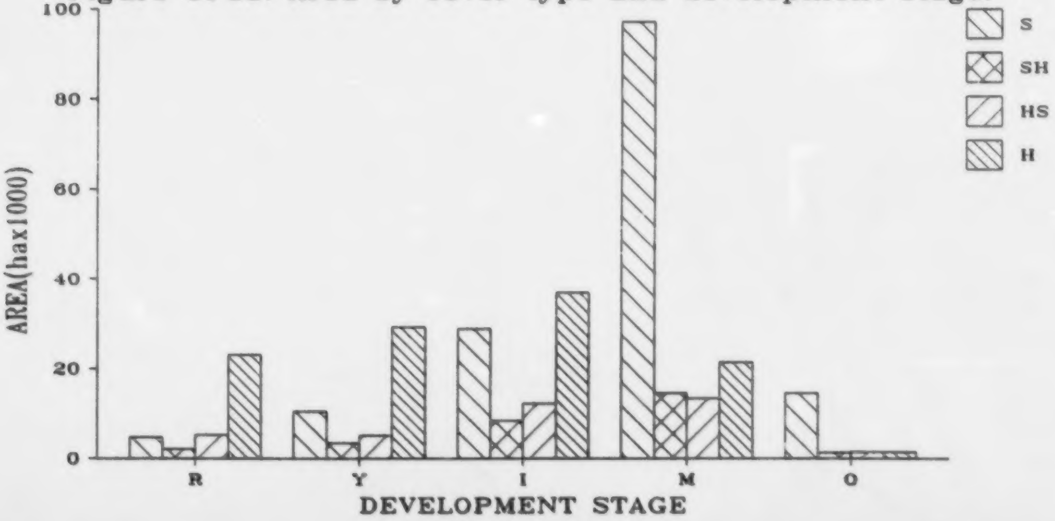


Table UPS5. Gross merchantable volume (m3) by cover type forest unit, species class, and development stage on the Upsalquitch License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	262345	1277250	2131829	584675	4256099	10.00
		HW	78702	192445	208720	40980	520847	1.22
	BFSP	SW	717842	1829713	9865898	594917	13008370	30.58
		HW	98948	379772	1973768	75284	2527772	5.94
	PINE	SW	32624	63384	469766	67940	633714	1.49
		HW	2347	1678	33170	1238	38433	.09
	PSSP	SW	727	2304	16465	3157	22653	.05
		HW	26	43	71	0	140	.00
	OTSW	SW	840	22800	654965	1043257	1721862	4.05
		HW	56	1691	33709	69438	104894	.25
SH	SPTH	SW	16708	68166	74226	9029	168129	.40
		HW	10339	20165	33436	6073	70013	.16
	SPIH	SW	12343	212912	93687	39950	358892	.84
		HW	7826	124706	38136	18959	189627	.45
	BFTH	SW	70793	326441	1019073	86682	1502989	3.53
		HW	25528	119187	533863	45051	723629	1.70
	BFIH	SW	138996	189495	249347	9573	587411	1.38
		HW	24738	59786	173494	3367	261385	.61
HS	THSP	SW	21329	57548	66775	531	146183	.34
		HW	10405	44834	59745	905	115889	.27
	IHSP	SW	39024	286676	58043	43348	427091	1.00
		HW	33787	317956	44831	61949	458523	1.08
	THBF	SW	117037	307058	631310	13864	1069269	2.51
		HW	63811	147689	700762	18339	930601	2.19
	IHBF	SW	157750	276980	105647	9556	549933	1.29
		HW	123444	249653	279652	25295	678044	1.59
H	TOHW	SW	859014	967420	577356	11547	2415337	5.68
		HW	1333840	1454302	1560590	25306	4374038	10.28
	THIH	SW	172371	110729	30709	0	313809	.74
		HW	229014	111992	49828	0	390834	.92
	IHHW	SW	127500	665841	230038	95357	1118736	2.63
		HW	185687	1433463	538656	113419	2271225	5.34
	IHTH	SW	192591	71731	13987	196	278505	.65
		HW	134718	117649	56517	810	309694	.73

Table UPS5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Upsalquitch License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SW	1014378	3195451	13138923	2293946	19642698	46.17
	HW	180079	575629	2249438	186940	3192086	7.50
	TOTAL	1194457	3771080	15388361	2480886	22834784	53.67
SH	SW	238840	797014	1436333	145234	2617421	6.15
	HW	68431	323844	778929	73450	1244654	2.93
	TOTAL	307271	1120858	2215262	218684	3862075	9.08
HS	SW	335140	928262	861775	67299	2192476	5.15
	HW	231447	760132	1084990	106488	2183057	5.13
	TOTAL	566587	1688394	1946765	173787	4375533	10.28
H	SW	1351476	1815721	852090	107100	4126387	9.70
	HW	1883259	3117406	2205591	139535	7345791	17.27
	TOTAL	3234735	4933127	3057681	246635	11472178	26.97
ALL COVER TYPES	SW	2939834	6736448	16289121	2613579	28578982	67.17
	HW	2363216	4777011	6318948	506413	13965588	32.83
	TOTAL	5303050	11513459	22608069	3119992	42544570	100.00
ALL COVER TYPES (%)	SW	6.91	15.83	38.29	6.14	67.17	
	HW	5.55	11.23	14.85	1.19	32.83	
	TOTAL	12.46	27.06	53.14	7.33	100.00	

Table UPS6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Upsalquitch License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	89	114	141	143	127
		HW	27	17	14	10	16
	BFSP	SW	101	108	132	145	127
		HW	14	22	27	18	25
	PINE	SW	76	142	156	124	143
		HW	5	4	11	2	9
	PSSP	SW	35	70	73	60	68
		HW	1	1	0	0	0
	OTSW	SW	76	118	153	182	169
		HW	5	9	8	12	10
SH	SPTH	SW	41	114	101	110	92
		HW	25	34	46	74	38
	SPIH	SW	32	82	102	108	84
		HW	20	48	42	51	44
	BFTH	SW	75	100	101	110	100
		HW	27	36	53	57	48
	BFIH	SW	83	96	88	86	89
		HW	15	30	61	30	40
HS	THSP	SW	64	74	79	44	74
		HW	31	57	70	75	59
	IHSP	SW	52	67	81	50	65
		HW	45	74	63	72	69
	THBF	SW	75	89	75	54	78
		HW	41	43	83	71	68
	IHBF	SW	65	74	31	31	56
		HW	51	67	82	82	69
H	TOHW	SW	47	53	39	49	47
		HW	74	80	105	107	85
	THIH	SW	42	70	43	0	49
		HW	55	71	70	0	61
	INHW	SW	33	43	45	78	44
		HW	49	93	104	92	89
	INTH	SW	62	40	26	25	51
		HW	43	65	103	101	57

Table UPS7. Gross merchantable volume (m3) by species and development stage on the Upsalquitch License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	764552	2182606	4619601	853514	8420273	19.79
Balsam Fir	1829013	3879433	9127459	857986	15693891	36.89
Jack Pine	22225	49793	122889	10388	205295	.48
Red Pine	2556	43211	95004	183	140954	.33
White Pine	121303	234991	698087	187936	1242317	2.92
Cedar	192324	340470	1613214	702653	2848661	6.70
Hemlock	6924	1191	10762	386	19263	.05
Larch	937	4753	2105	533	8328	.02
TOTAL SOFTWOOD	2939834	6736448	16289121	2613579	28578982	67.17
Red Maple	463960	805449	1421847	87073	2778329	6.53
Sugar Maple	421552	595633	1626457	42308	2685950	6.31
Yellow Birch	214852	400389	883504	80680	1579425	3.71
Beech	83228	329392	431029	4824	848473	1.99
Other Tolerant	143	1685	6217	707	8752	.02
Total Tolerant	1183735	2132548	4369054	215592	7900929	18.57
White Birch	368526	634286	774203	91189	1868204	4.39
Poplar	807797	1973117	1038905	184080	4003899	9.41
Other Intolerant	3158	37060	136786	15552	192556	.45
Total Intolerant	1179481	2644463	1949894	290821	6064659	14.25
TOTAL HARDWOOD	2363216	4777011	6318948	506413	13965588	32.83
TOTAL ALL SPECIES	5303050	11513459	22608069	3119992	42544570	100.00
PERCENT	12.46	27.06	53.14	7.33	100.00	

Figure UPS4a. Total volume by species class and development.

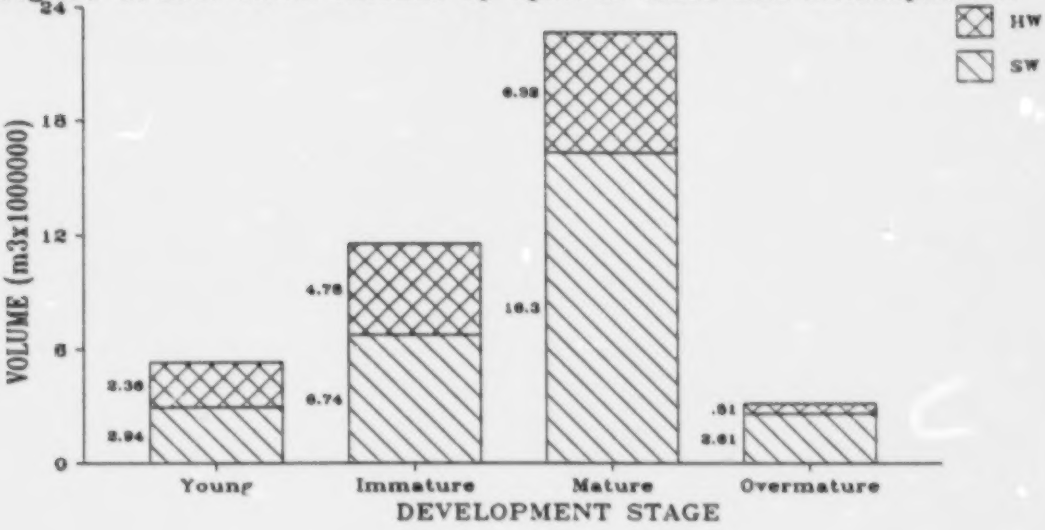


Figure UPS4b. Volume per ha by species class and development.

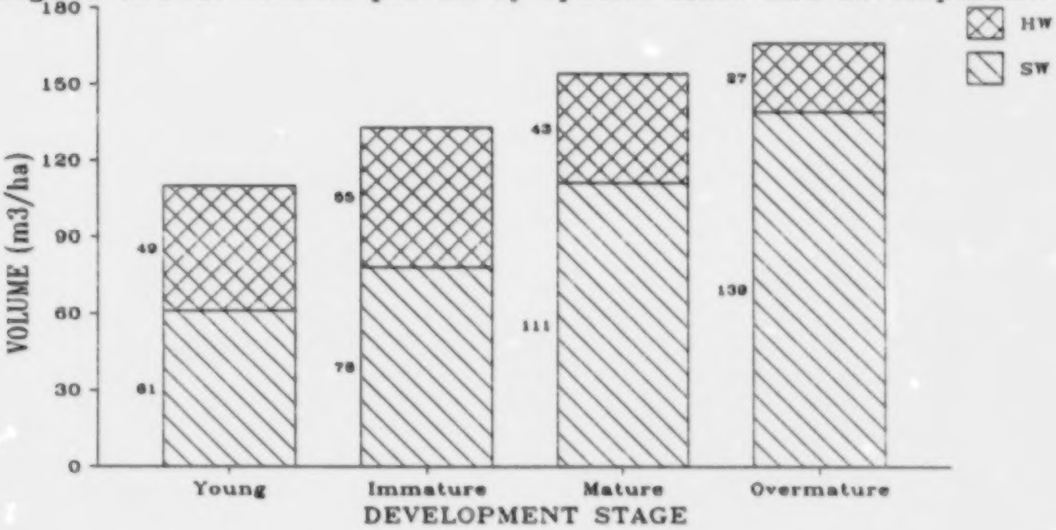


Figure UPS4c. Total area (hax1000) by development stage.

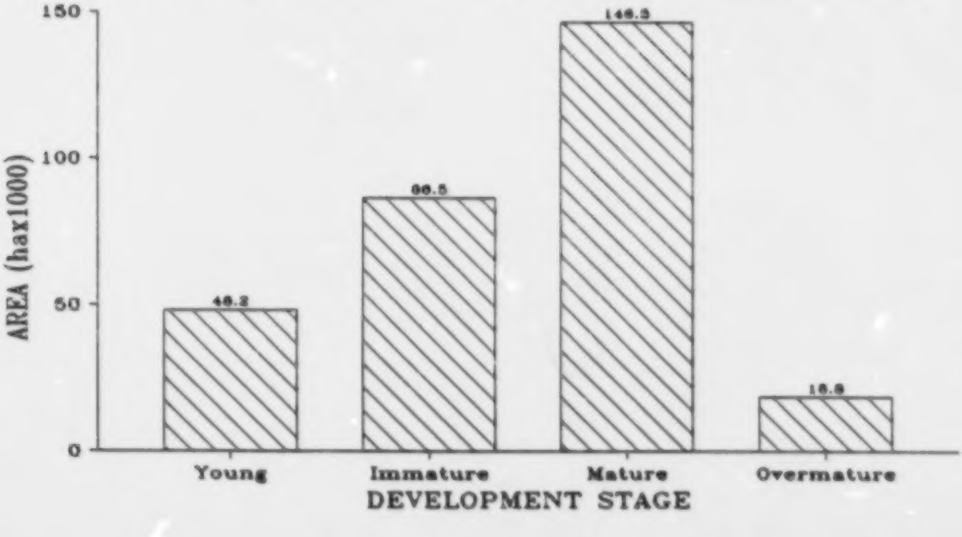


Table UPS8. Gross merchantable volume (m3) by species and DBH class (cm) on the Upsalquitch License.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	1380597	3499334	3540342	8420273	19.79
Balsam Fir	3919108	8553956	3220827	15693891	36.89
Jack Pine	7605	68431	129259	205295	.48
Red Pine	4946	44512	91496	140954	.33
White Pine	18895	75578	1147844	1242317	2.92
Cedar	130827	557072	2160762	2848661	6.70
Hemlock	0	7703	11560	19263	.05
Larch	0	3331	4997	8328	.02
TOTAL SOFTWOOD	5461978	12809917	10307087	28578982	67.17
Red Maple	904572	1141484	732273	2778329	6.53
Sugar Maple	327711	575102	1783137	2685950	6.31
Yellow Birch	196465	427601	955360	1579425	3.71
Beech	80488	214633	553352	848473	1.99
Other Tolerant	0	0	8752	8752	.02
Total Tolerant	1509235	2358820	4032875	7900929	18.57
White Birch	628245	743975	495984	1868204	4.39
Poplar	424047	1428371	2151482	4003899	9.41
Other Intolerant	13754	77938	100864	192556	.45
Total Intolerant	1066045	2250284	2748329	6064659	14.25
TOTAL HARDWOOD	2575280	4609104	6781204	13965588	32.83
TOTAL ALL SPECIES	8037258	17419021	17088291	42544570	100.00
PERCENT	18.89	40.94	40.17	100.00	

Figure UPS5. Volume by species class and DBH class.

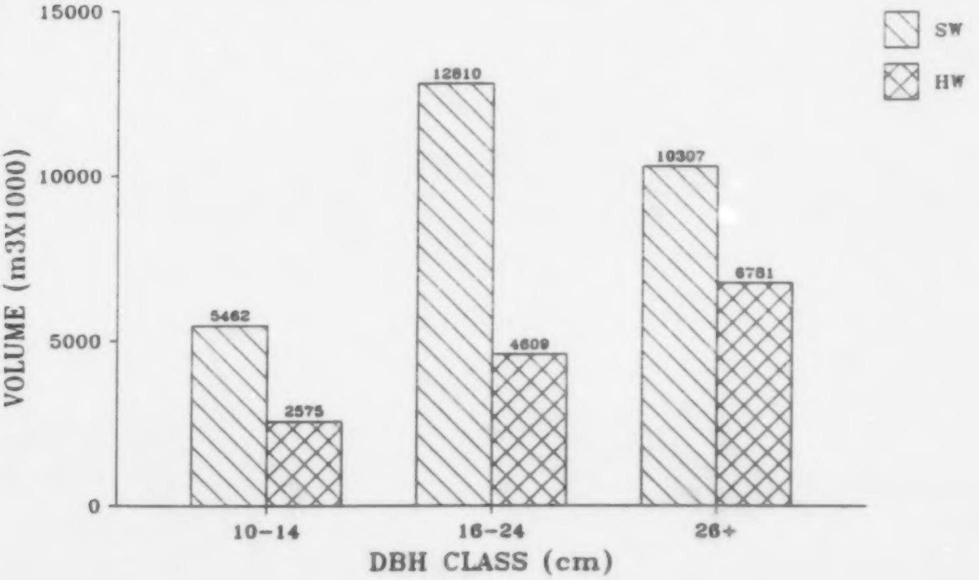
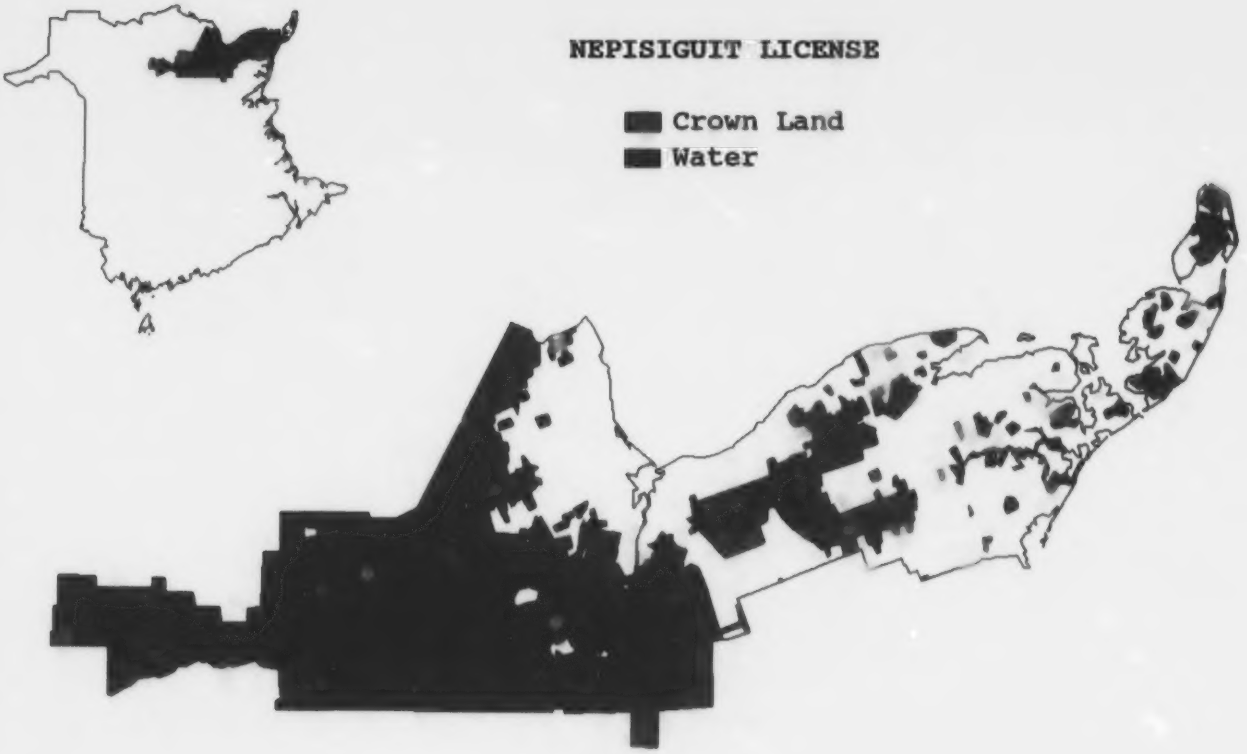


Table UPS9. Spruce and Balsam Fir cull factors (%) by DBH(cm) and SBD(cm) - Upsalquitch License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	.51	10	.46	10	3.28	10	3.08
12	.66	12	.60	12	3.47	12	3.40
14	.81	14	.74	14	3.91	14	3.88
16	.97	16	.88	16	4.60	16	4.52
18	1.12	18	1.02	18	5.54	18	5.32
20	1.27	20	1.16	20	6.72	20	6.29
22	1.43	22	1.30	22	8.15	22	7.42
24	1.58	24	1.44	24	9.83	24	8.71
26	1.74	26	1.57	26	11.75	26	10.17
28	1.89	28	1.71	28	13.92	28	11.78
30	2.05	30	1.85	30	16.34	30	13.56
32	2.20	32	1.99	32	19.00	32	15.50
34	2.36	34	2.12	34	21.91	34	17.61
36	2.52	36	2.26	36	25.07	36	19.88
38	2.67	38	2.40	38	28.48	38	22.31
40	2.83	40	2.53	40	32.13	40	24.90
42	2.99	42	2.67	42	36.03	42	27.65
44	3.15	44	2.80	44	40.18	44	30.57
46	3.31	46	2.94	46	44.57	46	33.65
48	3.47	48	3.07	48	49.21	48	36.89
50	3.62	50	3.21	50	54.10	50	40.29

%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)	%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)
C0=-.2506734	C0=-.2462459	C0=6.019217	C0=3.9338879
C1= .0752989	C1= .0709895	C1=-.5819909	C1=-.2883354
C2= .000043	C2=-.0000385	C2= .030874	C2= .0203100
	R= .9151		R= .9207

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	.66	10-14	.60	10-14	3.55	10-14	3.45
16-24	1.27	16-24	1.16	16-24	6.97	16-24	6.45
26+	2.68	26+	2.39	26+	30.21	26+	23.44
ALL	2.05	ALL	1.84	ALL	20.87	ALL	16.54



The Nepisiguit License is located in the northeast part of the province and encompasses the Nepisiguit, Tetigouche, Tracadie and Caraquet River watersheds. Approximately 65 percent of the license is covered by a coniferous forest, predominantly of spruce and balsam fir, 17 percent is deciduous and 18 percent is covered by a mixed-wood forest. Approximately 37 percent of productive forest land is in the mature development stage. Spruce and balsam fir make up 66 percent of the total merchantable volume on the license. Other predominant species by merchantable volume include cedar, poplar, red and sugar maple, jack and white pine.Approximately 48 percent of the merchantable volume is in the 16-24 cm DBH size class, 29 percent is in the 26+ cm DBH range and 23 percent is in the 10- 14 cm DBH class.

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Table NEP4. Area (ha) by cover type, forest unit and development stage on the Nepisiguit License.

COVER	FOREST			DEVELOPMENT STAGE			TOTAL	PERCENT
TYPE	UNIT	Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	1859	3473	35690	29388	4265	74675	35.39
	BFSP	1750	630	5532	32893	2263	43068	20.41
	PINE	689	2755	4051	2154	117	9766	4.63
	PSSP	28	26	174	1024	864	2116	1.00
	OTSW	43	66	619	3288	2859	6875	3.26
	TOTAL	4369	6950	46066	68747	10368	136500	64.69
SH	SPTH	56	142	1047	1600	75	2920	1.38
	SPIH	339	402	1108	1509	42	3400	1.61
	BFTH	364	164	1868	5393	90	7879	3.73
	BFIH	793	253	1231	1051	21	3349	1.59
	TOTAL	1552	961	5254	9553	228	17548	8.32
HS	THSP	236	310	1130	888	13	2577	1.22
	IHSP	451	781	1707	1676	64	4679	2.22
	THBF	941	423	1735	2970	85	6154	2.92
	IHBF	1538	1255	2715	1006	21	6535	3.10
	TOTAL	3166	2769	7287	6540	183	19945	9.45
H	TOHW	3328	2465	4923	3340	74	14130	6.70
	THIH	2101	1430	1443	169	0	5143	2.44
	INHW	2288	4154	5137	2456	615	14650	6.94
	IHTH	807	1228	974	87	0	3096	1.47
	TOTAL	8524	9277	12477	6052	689	37019	17.54
ALL COVER TYPES	TOTAL	17611	19957	71084	90892	11468	211012	100.00
ALL COVER TYPES	PERCENT	8.35	9.46	33.69	43.07	5.43	100.00	

Figure NEP3. Area by cover type and development stage.

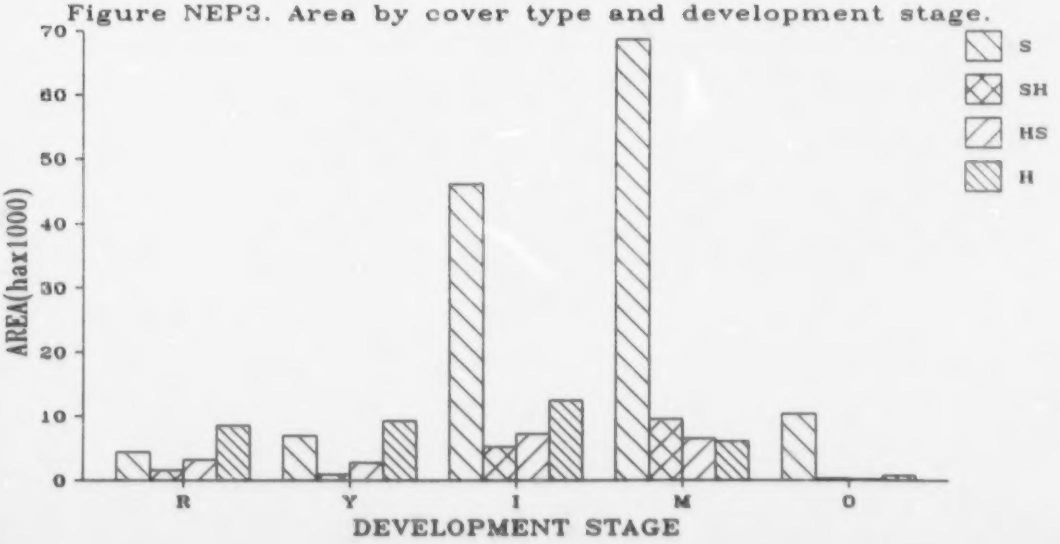


Table NEP5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Nepisiguit License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	201020	4632238	4042958	548319	9424535	36.24
		HW	5787	296881	261131	43596	607395	2.34
	BFSP	SW	54207	547524	4468729	294377	5364837	20.63
		HW	7932	117100	739381	34618	899031	3.46
	PINE	SW	182943	525669	373843	14584	1097039	4.22
		HW	29755	11766	6070	266	47857	.18
	PSSP	SW	904	12302	74445	51481	139132	.54
		HW	33	230	321	0	584	.00
	OTSW	SW	4880	104687	510128	467021	1086716	4.18
		HW	327	12139	26067	8577	47110	.18
SH	SPTH	SW	5793	108528	161820	8323	284464	1.09
		HW	3586	33760	72893	5598	115837	.45
	SPIH	SW	12748	104514	132263	4582	254107	.98
		HW	8083	36190	75686	2173	122132	.47
	BFTH	SW	12441	173176	524452	9962	720031	2.77
		HW	3727	78448	262959	5177	350311	1.35
	BFIH	SW	16159	120831	114930	1778	253698	.98
		HW	3100	34451	42424	626	80601	.31
HS	THSP	SW	19721	73792	69950	584	164047	.63
		HW	9622	70025	62584	993	143224	.55
	IHSP	SW	40502	68289	136215	3227	248233	.95
		HW	35066	95608	105209	4612	240495	.92
	THBF	SW	18943	75706	211421	4569	310639	1.19
		HW	18012	82430	194678	6043	301163	1.16
	IHBF	SW	51647	163436	65717	1388	282188	1.09
		HW	54573	137778	68450	1445	262246	1.01
H	TOHW	SW	48795	174446	157689	3592	384522	1.48
		HW	136528	423562	306586	7873	874549	3.36
	THIH	SW	54511	68546	7330	0	130387	.50
		HW	68953	98851	11894	0	179698	.69
	INHW	SW	114236	130220	142942	47694	435092	1.67
		HW	130021	478223	261081	56728	926053	3.56
	INTH	SW	56076	23547	2221	0	81844	.31
		HW	57057	78928	8979	0	144964	.56

Table NEP5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Nepisiguit License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	443954	5822420	9470103	1375782	17112259	65.80
	HW	43834	438116	1032970	87057	1601977	6.16
	TOTAL	487788	6260536	10503073	1462839	18714236	71.96
SH	SW	47141	507049	933465	24645	1512300	5.82
	HW	18496	182849	453962	13574	668881	2.57
	TOTAL	65637	689898	1387427	38219	2181181	8.39
HS	SW	130813	381223	483303	9768	1005107	3.87
	HW	117273	385841	430921	13093	947128	3.64
	TOTAL	248086	767064	914224	22861	1952235	7.51
H	SW	273618	396759	310182	51286	1031845	3.97
	HW	392559	1079564	588540	64601	2125264	8.17
	TOTAL	666177	1476323	898722	115887	3157109	12.14
ALL COVER TYPES	SW	895526	7107451	11197053	1461481	20661511	79.45
	HW	572162	2086370	2506393	178325	5343250	20.55
	TOTAL	1467688	9193821	13703446	1639806	26004761	100.00
ALL COVER TYPES (%)	SW	3.44	27.33	43.06	5.62	79.45	
	HW	2.20	8.02	9.64	.69	20.55	
	TOTAL	5.64	35.35	52.70	6.31	100.00	

Table NEP6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Nepisiguit License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	AVERAGE
S	SPBF	SW	58	130	138	129	129
		HW	2	8	9	10	8
	BFSP	SW	86	99	136	130	130
		HW	13	21	22	15	22
	PINE	SW	66	130	174	125	121
		HW	11	3	3	2	5
	PSSP	SW	35	71	73	60	67
		HW	1	1	0	0	0
	OTSW	SW	74	169	155	163	159
		HW	5	20	8	3	7
SH	SPTH	SW	41	104	101	111	99
		HW	25	32	46	75	40
	SPIH	SW	32	94	88	109	83
		HW	20	33	50	52	40
	BFTH	SW	76	93	97	111	96
		HW	23	42	49	58	47
	BFIH	SW	64	98	109	85	99
		HW	12	28	40	30	32
HS	THSP	SW	64	65	79	45	70
		HW	31	62	70	76	61
	IHSP	SW	52	40	81	50	59
		HW	45	56	63	72	57
	THBF	SW	45	44	71	54	60
		HW	43	48	66	71	58
	IHBF	SW	41	60	65	66	56
		HW	43	51	68	69	52
H	TOHW	SW	20	35	47	49	36
		HW	55	86	92	106	81
	THIH	SW	38	48	43	0	43
		HW	48	69	70	0	59
	IHHW	SW	28	25	58	78	35
		HW	31	93	106	92	75
	IHTH	SW	46	24	26	0	36
		HW	46	81	103	0	63

Table NEP7. Gross merchantable volume (m3) by species and development stage on the Nepisiguit License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	350592	4167022	5514827	635517	10667958	41.02
Balsam Fir	320409	1707139	4088698	340480	6456726	24.83
Jack Pine	125571	495926	199886	4288	825671	3.18
Red Pine	3768	11523	26488	90	41869	.16
White Pine	36989	291403	321100	22542	672034	2.58
Cedar	33605	372679	982770	451785	1840839	7.08
Hemlock	4353	14977	37900	2739	59969	.23
Larch	20239	46782	25384	4040	96445	.37
TOTAL SOFTWOOD	895526	7107451	11197053	1461481	20661511	79.45
Red Maple	101998	453166	730152	59887	1345203	5.17
Sugar Maple	93225	320645	476577	12232	902679	3.47
Yellow Birch	48980	118512	265193	18501	451186	1.74
Beech	62893	119966	59807	1918	244584	.94
Other Tolerant	122	786	1483	293	2684	.01
Total Tolerant	307218	1013075	1533212	92831	2946336	11.33
White Birch	84061	320470	420684	26144	851359	3.27
Poplar	177232	729259	508008	50559	1465058	5.63
Other Intolerant	3651	23566	44489	8791	80497	.31
Total Intolerant	264944	1073295	973181	85494	2396914	9.22
TOTAL HARDWOOD	572162	2086370	2506393	178325	5343250	20.55
TOTAL ALL SPECIES	1467688	9193821	13703446	1639806	26004761	100.00
PERCENT	5.64	35.35	52.70	6.31	100.00	

Figure NEP4a. Total volume by species class and development.

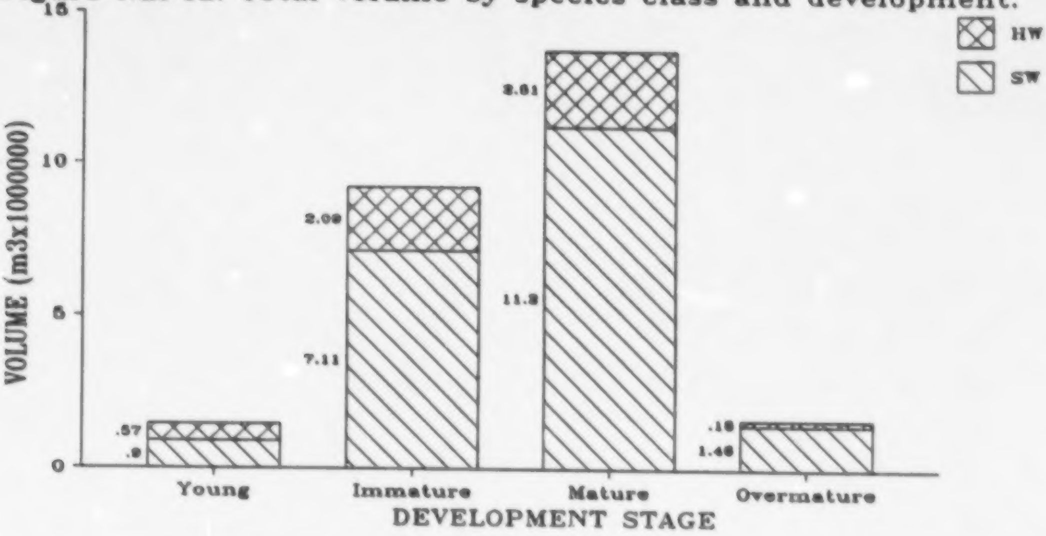


Figure NEP4b. Volume per ha by species class and development.

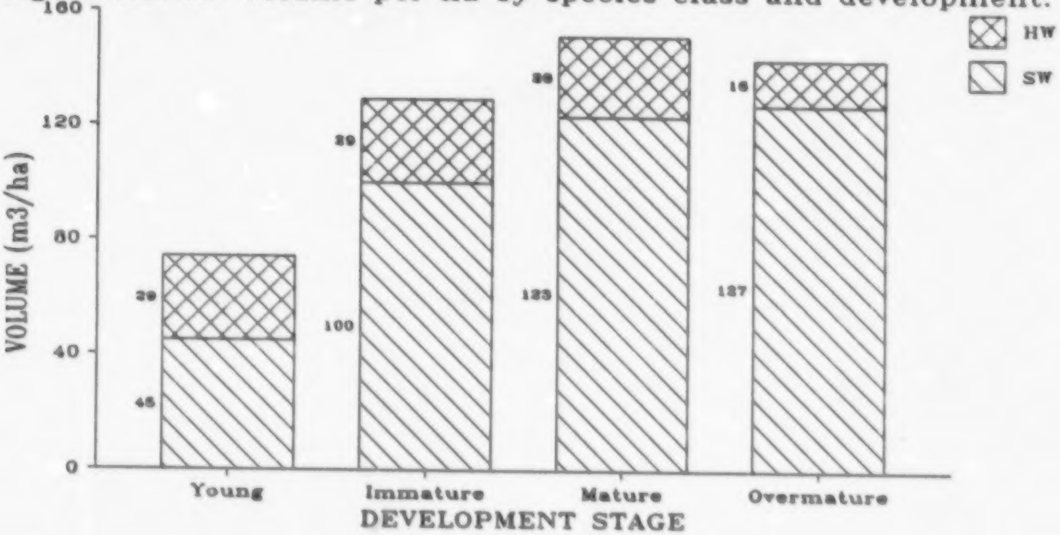


Figure NEP4c. Total area (hax1000) by development stage.

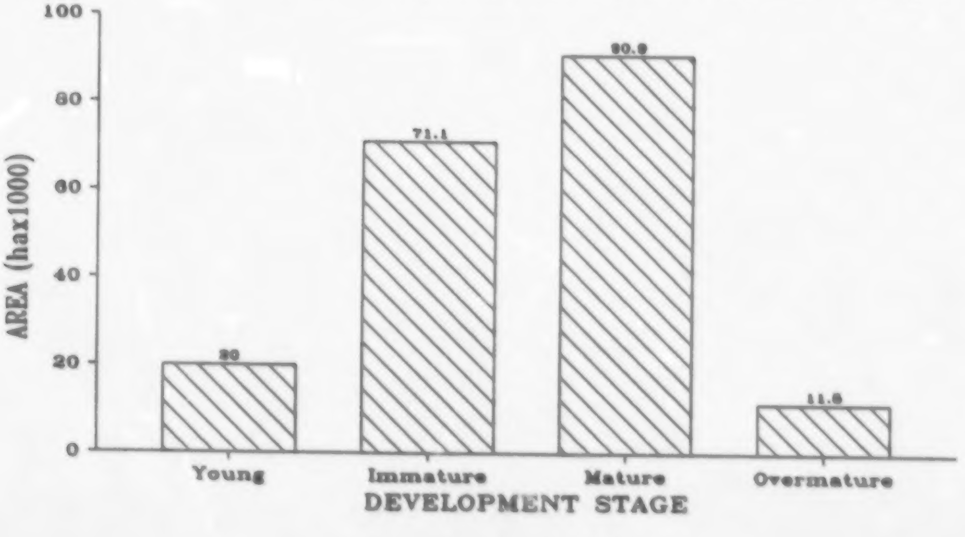


Table NEP8. Gross merchantable volume (m3) by species and DBH class (cm) on the Nepisiguit License.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	2473117	5473170	2721671	10667958	41.02
Balsam Fir	1794964	3747129	914632	6456726	24.83
Jack Pine	167527	478650	179494	825671	3.18
Red Pine	0	8973	32896	41869	.16
White Pine	46188	131636	494211	672034	2.58
Cedar	195570	574292	1070977	1840839	7.08
Hemlock	0	3156	56813	59969	.23
Larch	32148	42865	21432	96445	.37
TOTAL SOFTWOOD	4709514	10459871	5492126	20661511	79.45
Red Maple	475920	558478	310805	1345203	5.17
Sugar Maple	123897	221245	557537	902679	3.47
Yellow Birch	55702	153181	242304	451186	1.74
Beech	68575	114291	61717	244584	.94
Other Tolerant	0	2684	0	2684	.01
Total Tolerant	724094	1049879	1172363	2946336	11.33
White Birch	317744	351701	181914	851359	3.27
Poplar	200396	533487	731175	1465058	5.63
Other Intolerant	12983	36354	31160	80497	.31
Total Intolerant	531122	921542	944250	2396914	9.22
TOTAL HARDWOOD	1255216	1971421	2116613	5343250	20.55
TOTAL ALL SPECIES	5964731	12431292	7608739	26004761	100.00
PERCENT	22.94	47.80	29.26	100.00	

Figure NEP5. Volume by species class and DBH class.

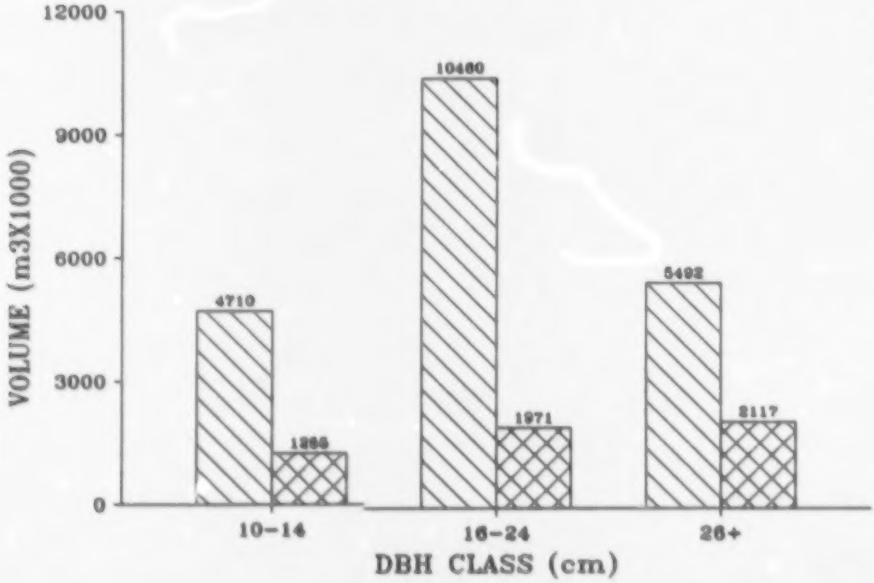
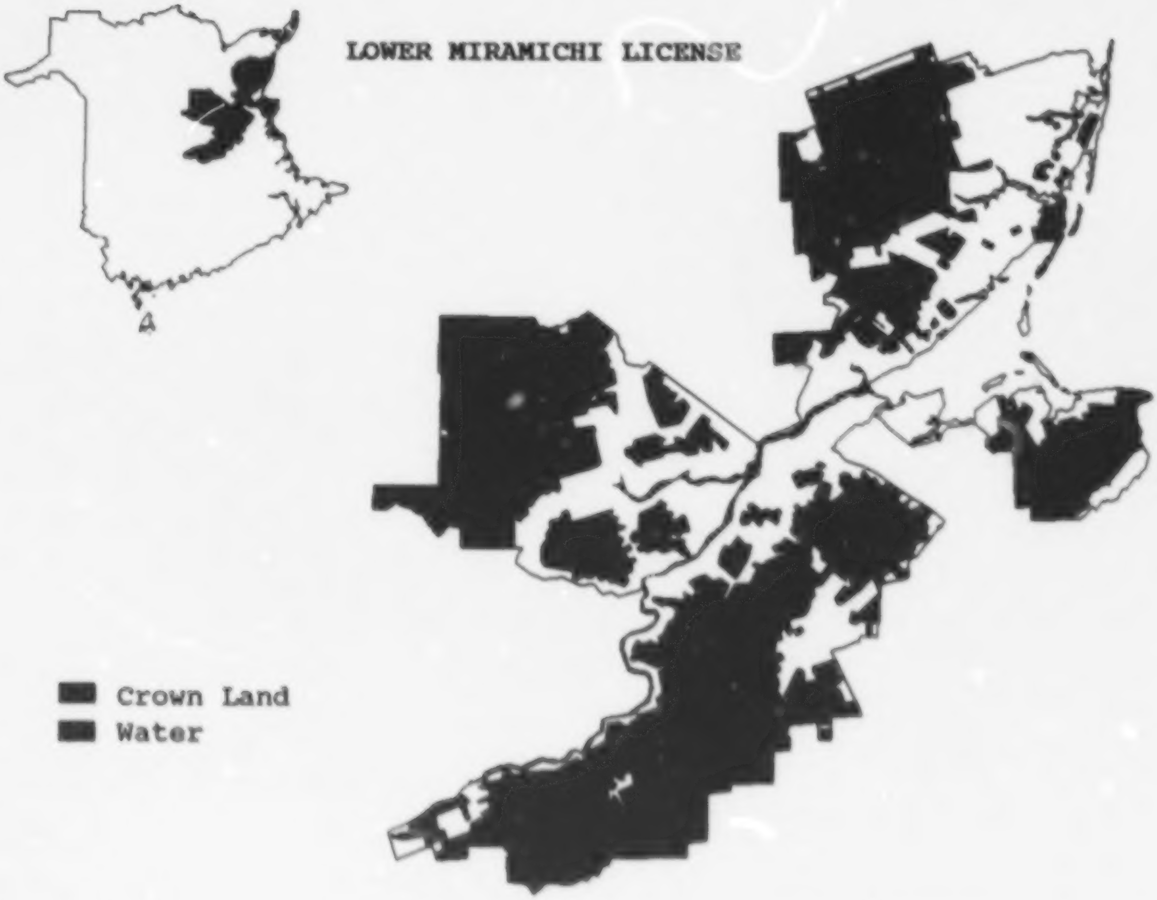


Table NEP9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Nepisiguit License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	.47	10	.15	10	7.33	10	7.20
12	1.84	12	1.39	12	6.99	12	6.95
14	3.12	14	2.56	14	6.74	14	6.77
16	4.29	16	3.64	16	6.60	16	6.65
18	5.37	18	4.65	18	6.55	18	6.60
20	6.34	20	5.58	20	6.61	20	6.62
22	7.22	22	6.43	22	6.77	22	6.71
24	7.99	24	7.20	24	7.02	24	6.87
26	8.67	26	7.90	26	7.38	26	7.10
28	9.25	28	8.51	28	7.84	28	7.39
30	9.72	30	9.05	30	8.40	30	7.76
32	10.10	32	9.51	32	9.05	32	8.19
34	10.38	34	9.90	34	9.81	34	8.69
36	10.56	36	10.20	36	10.67	36	9.26
38	10.64	38	10.43	38	11.63	38	9.90
40	10.62	40	10.58	40	12.69	40	10.61
42	10.50	42	10.65	42	13.85	42	11.38
44	10.28	44	10.65	44	15.11	44	12.23
46	9.97	46	10.56	46	16.47	46	13.14
48	9.55	48	10.40	48	17.94	48	14.12
50	9.03	50	10.16	50	19.50	50	15.17

%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)	%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)
C0=-7.8892391	C0=-7.2204469	C0=10.5650289	C0=9.5018681
C1= .9601465	C1= .8346295	C1= .9601465	C1=-.3155548
C2= -.012434	C2= -.0097394	C2= -.012434	C2= .0085801
	R= .9938		R= .9217

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	1.81	10-14	1.37	10-14	7.02	10-14	6.97
16-24	6.24	16-24	5.50	16-24	6.71	16-24	6.69
26+	9.94	26+	9.88	26+	12.33	26+	10.38
ALL	7.90	ALL	7.62	ALL	10.24	ALL	9.01



The Lower Miramichi License is located in the central eastern part of the province and encompasses the lower reaches of the Southwest, Little Southwest and Northwest Miramichi, Sevogle, Bartibog and Cains River watersheds. Approximately 64 percent of the license is covered by a coniferous forest, predominantly of spruce,13 percent is deciduous and 23 percent is covered by a mixed-wood forest. Approximately 41 percent of productive forest land is in the mature development stage. Spruce makes up 48 percent of the total merchantable volume on the license. Other predominant species by merchantable volume include balsam fir, cedar, red maple, jack pine, white pine and poplar. Approximately 45 percent of the merchantable volume is in the 16-24 cm DBH size class, 34 percent is in the 26+ cm DBH range and 21 percent is in the 10- 14 cm DBH class.

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Table LOMIR4. Area (ha) by cover type, forest unit and development stage on the Lower Miramichi License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE					TOTAL	PERCENT
		Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	5006	8870	34002	57852	1121	106851	44.93
	BFSP	1267	961	2033	7160	308	11729	4.93
	PINE	1429	2738	6288	7369	8	17832	7.50
	PSSP	100	589	1698	3668	196	6251	2.63
	OTSW	193	287	1063	7593	1261	10397	4.37
	TOTAL	7995	13445	45084	83642	2894	153060	64.35
SH	SPTH	360	455	4160	10167	73	15215	6.40
	SPIH	977	707	2011	2945	45	6685	2.81
	BFTH	441	447	1070	3475	0	5433	2.28
	BFIH	325	162	353	862	92	1794	.75
	TOTAL	2103	1771	7594	17449	210	29127	12.25
HS	THSP	353	699	2488	5714	14	9268	3.90
	IHSP	1190	1052	2885	3432	84	8643	3.63
	THBF	424	721	961	1497	10	3613	1.52
	IHBF	705	382	719	1183	42	3031	1.27
	TOTAL	2672	2854	7053	11826	150	24555	10.32
H	TOHW	1725	4062	4015	2423	8	12233	5.14
	THIH	984	747	714	314	0	2759	1.16
	INHW	2305	4007	2187	3173	1714	13386	5.63
	IHTH	760	686	766	469	42	2723	1.14
	TOTAL	5774	9502	7682	6379	1764	31101	13.08
ALL COVER TYPES	TOTAL	18544	27572	67413	119296	5018	237843	100.00
ALL COVER TYPES	PERCENT	7.80	11.59	28.34	50.16	2.11	100.00	

Figure LOMIR3. Area by cover type and development stage.

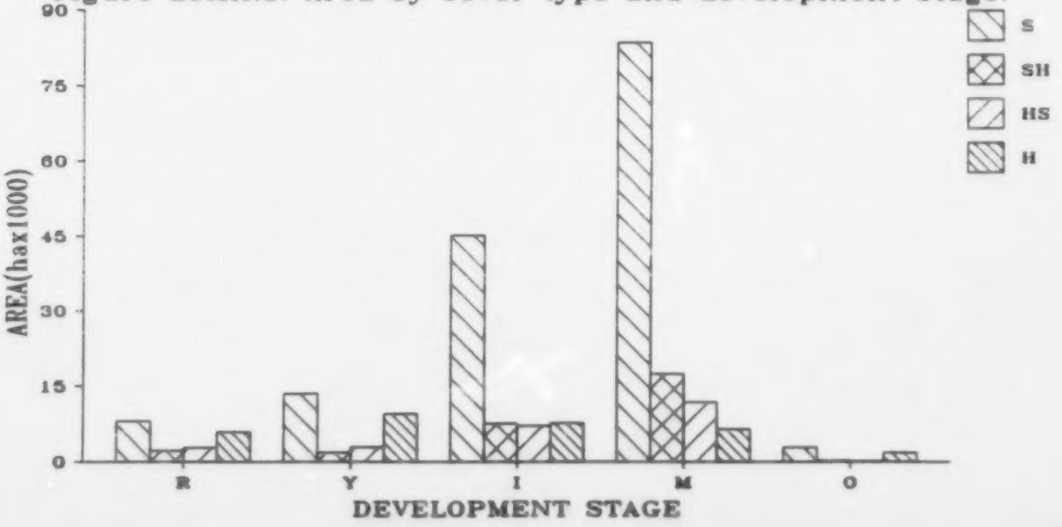


Table LOMIR5. Gross merchantable volume ($m3$) by cover type, forest unit, species class, and development stage on the Lower Miramichi Licence.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
S	SPBF	SW	666735	3599277	6964394	154066	11384472	41.74
		HW	10347	220719	633514	11286	875866	3.21
	BFSP	SW	82600	244186	1154387	45120	1526293	5.60
		HW	12086	22358	142009	5338	181791	.67
	PINE	SW	243114	914246	1087631	944	2245935	8.23
		HW	3041	21557	39790	17	64405	.24
	PSSP	SW	20363	120031	262635	11652	414681	1.52
		HW	726	2240	3668	0	6634	.02
	OTSW	SW	21044	125321	950971	233511	1330847	4.88
		HW	1412	9288	72359	12307	95366	.35
SH	SPTH	SW	18550	489309	952829	8054	1468742	5.38
		HW	11479	149753	472055	5419	638706	2.34
	SPIH	SW	22438	183977	207295	4884	418594	1.53
		HW	14226	77320	148994	2317	242857	.89
	BFTH	SW	33893	97688	362094	0	493675	1.81
		HW	10155	36382	161586	0	208123	.76
	BFIH	SW	10360	41946	94311	7906	154523	.57
		HW	1987	9074	34812	2782	48655	.18
HS	THSP	SW	44516	255343	439655	614	740128	2.71
		HW	21716	148973	437083	1045	608817	2.23
	IHSP	SW	54538	157218	224766	4228	440750	1.62
		HW	47218	163855	232487	6042	449602	1.65
	THBF	SW	53864	56513	116524	518	227419	.83
		HW	29368	58124	106829	684	195005	.71
	IHBF	SW	23945	66245	83275	2970	176435	.65
		HW	14429	36040	83748	2987	137204	.50
H	TOHW	SW	108872	172648	90108	366	371994	1.36
		HW	233183	334973	221511	801	790468	2.90
	THIH	SW	27260	34863	13641	0	75764	.28
		HW	29499	47978	22134	0	99611	.37
	INHW	SW	16029	29739	115147	115808	276723	1.01
		HW	76142	127707	304651	151800	660300	2.42
	INTH	SW	41536	34342	12008	1072	88958	.33
		HW	28601	55010	48521	4342	136554	.50

Table LOMIR5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Lower Miramichi License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	1033856	5003061	10420018	445293	16902228	61.97
	HW	27612	276162	891340	28948	1224062	4.49
	TOTAL	1061468	5279223	11311358	474241	18126290	66.46
SH	SW	85241	812920	1616529	20844	2535534	9.30
	HW	37847	272529	817447	10518	1138341	4.17
	TOTAL	123088	1085449	2433976	31362	3673875	13.47
HS	SW	176863	535319	864220	8330	1584732	5.81
	HW	112731	406992	860147	10758	1390628	5.10
	TOTAL	289594	942311	1724367	19088	2975360	10.91
H	SW	193697	271592	230904	117246	813439	2.98
	HW	367505	565668	596817	156943	1686933	6.18
	TOTAL	561202	837260	827721	274189	2500372	9.17
ALL COVER TYPES	SW	1489657	6622892	13131671	591713	21835933	80.06
	HW	545695	1521351	3165751	207167	5439964	19.94
	TOTAL	2035352	8144243	16297422	798880	27275897	100.00
ALL COVER TYPES (%)	SW	5.46	24.28	48.14	2.17	80.06	
	HW	2.00	5.58	11.61	.76	19.94	
	TOTAL	7.46	29.86	59.75	2.93	100.00	

Table LOMIR6. Gross merchantable volume (m^3/ha) by cover type, forest unit, species class, and development stage on the Lower Miramichi License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	75	106	120	137	112
		HW	1	6	11	10	9
	BFSP	SW	86	120	161	146	146
		HW	13	11	20	17	17
	PINE	SW	89	145	148	118	137
		HW	1	3	5	2	4
	PSSP	SW	35	71	72	59	67
		HW	1	1	1	0	1
	OTSW	SW	73	118	125	185	130
		HW	5	9	10	10	9
SH	SPTH	SW	41	118	94	110	99
		HW	25	36	46	74	43
	SPIH	SW	32	91	70	109	73
		HW	20	38	51	51	43
	BFTH	SW	76	91	104	0	99
		HW	23	34	46	0	42
	BFIH	SW	64	119	109	86	105
		HW	12	26	40	30	33
HS	THSP	SW	64	103	77	44	83
		HW	31	60	76	75	68
	IHSP	SW	52	54	65	50	59
		HW	45	57	68	72	60
	THBF	SW	75	59	78	52	71
		HW	41	60	71	68	61
	IHBF	SW	63	92	70	71	76
		HW	38	50	71	71	59
H	TOHW	SW	27	43	37	46	35
		HW	57	83	91	100	75
	THIH	SW	36	49	43	0	43
		HW	39	67	70	0	56
	INHW	SW	4	14	36	68	25
		HW	19	58	96	89	60
	INTH	SW	61	45	26	26	45
		HW	42	72	103	103	70

Table LOMIR7. Gross merchantable volume (m3) by species and development stage on the Lower Miramichi License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	806883	3878665	8007746	258179	12951473	47.48
Balsam Fir	263955	916076	1883360	145372	3208763	11.76
Jack Pine	250195	841711	627630	3236	1722772	6.32
Red Pine	1884	24889	63856	894	91523	.34
White Pine	71609	498663	567189	26192	1163653	4.27
Cedar	33949	341335	1499001	145974	2020259	7.41
Hemlock	31437	58665	263620	10119	363841	1.33
Larch	29745	62888	219269	1747	313649	1.15
TOTAL SOFTWOOD	1489657	6622892	13131671	591713	21835933	80.06
Red Maple	137520	447998	1344756	48647	1978921	7.26
Sugar Maple	71647	231096	248231	4923	555897	2.04
Yellow Birch	46444	132591	337232	11595	527862	1.94
Beech	58855	115922	164441	2871	342089	1.25
Other Tolerant	1158	3077	3862	242	8340	.03
Total Tolerant	315624	930684	2098522	68278	3413109	12.51
White Birch	62675	227930	453790	45284	789679	2.90
Poplar	152338	322726	563230	90458	1128752	4.14
Other Intolerant	15058	40011	50209	3147	108424	.40
Total Intolerant	230071	590667	1067229	138889	2026855	7.43
TOTAL HARDWOOD	545695	1521351	3165751	207167	5439964	19.94
TOTAL ALL SPECIES	2035352	8144243	16297422	798880	27275897	100.00
PERCENT	7.46	29.86	59.75	2.93	100.00	

Figure LOMIR4a. Total volume by species class and development.

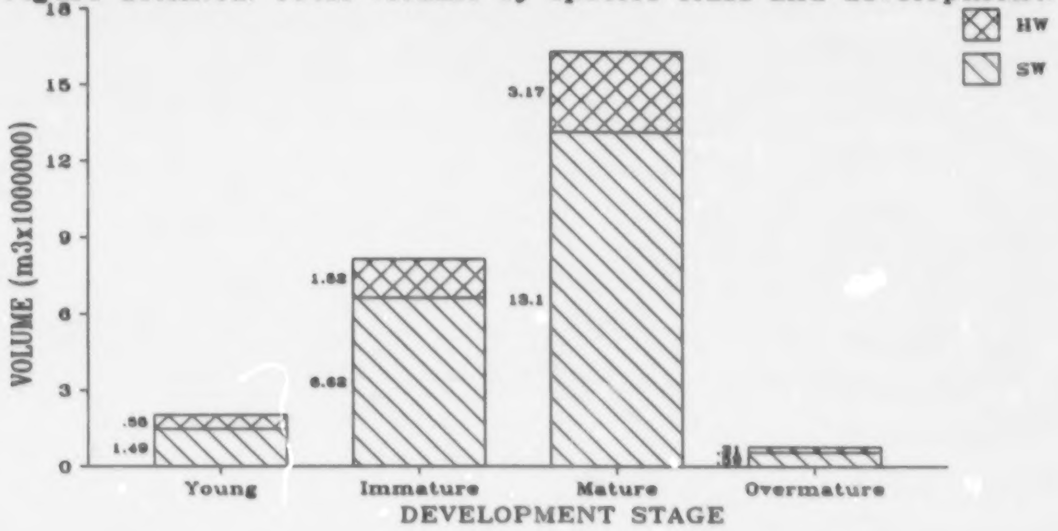


Fig. LOMIR4b. Volume per ha by species class and development.

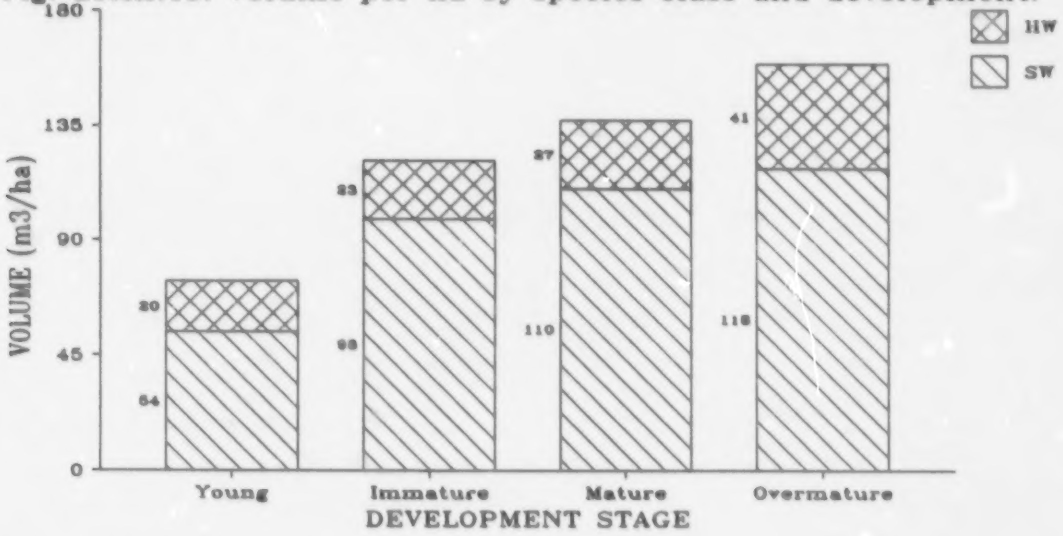


Figure LOMIR4c. Total area (hax1000) by development stage.

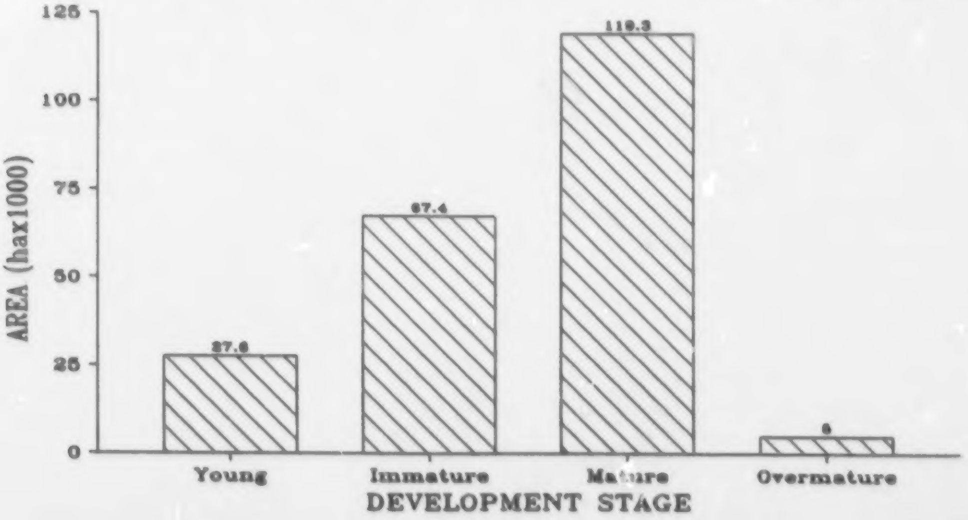


Table LOMIR8. Gross merchantable volume (m3) by species and DBH class (cm) on the Lower Miramichi License.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	2955964	6373714	3621795	12951473	47.48
Balsam Fir	863414	1780204	565144	3208763	11.76
Jack Pine	323871	996104	402797	1722772	6.32
Red Pine	0	9805	81718	91523	.34
White Pine	51417	208374	903862	1163653	4.27
Cedar	285104	803199	931956	2020259	7.41
Hemlock	7528	27602	328711	363841	1.33
Larch	107301	140316	66031	313649	1.15
TOTAL SOFTWOOD	4594600	10339320	6902013	21835933	80.06
Red Maple	458014	836374	684533	1978921	7.26
Sugar Maple	64029	136792	355076	555897	2.04
Yellow Birch	39732	116356	371774	527862	1.94
Beech	76970	138974	126145	342089	1.25
Other Tolerant	0	5560	2780	8340	.03
Total Tolerant	638745	1234056	1540308	3413109	12.51
White Birch	164191	346624	278864	789679	2.90
Poplar	149034	361592	618126	1128752	4.14
Other Intolerant	41025	32234	35165	108424	.40
Total Intolerant	354250	740450	932155	2026855	7.43
TOTAL HARDWOOD	992995	1974506	2472463	5439964	19.94
TOTAL ALL SPECIES	5587595	12313826	9374476	27275897	100.00
PERCENT	20.49	45.15	34.37	100.00	

Figure LOMIR5. Volume by species class and DBH class.

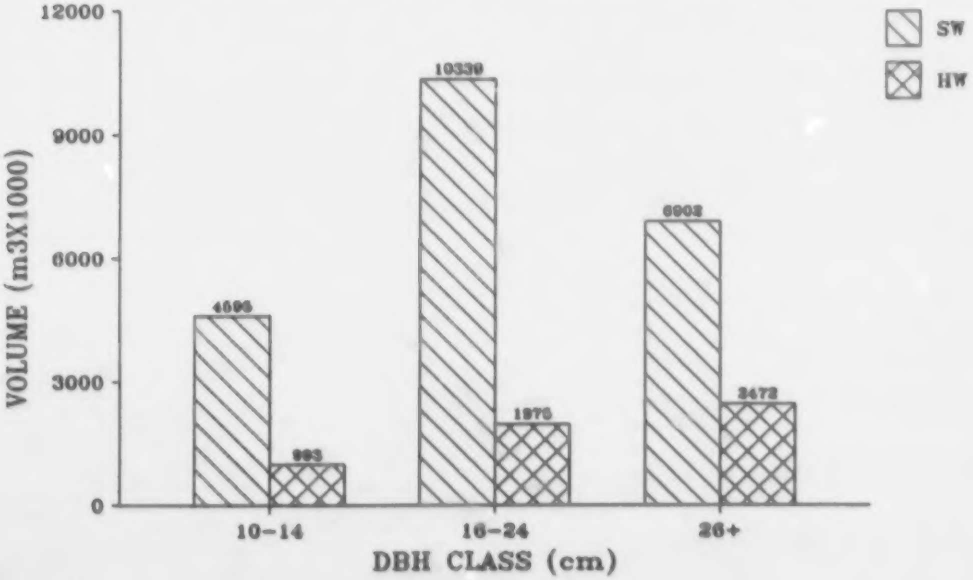
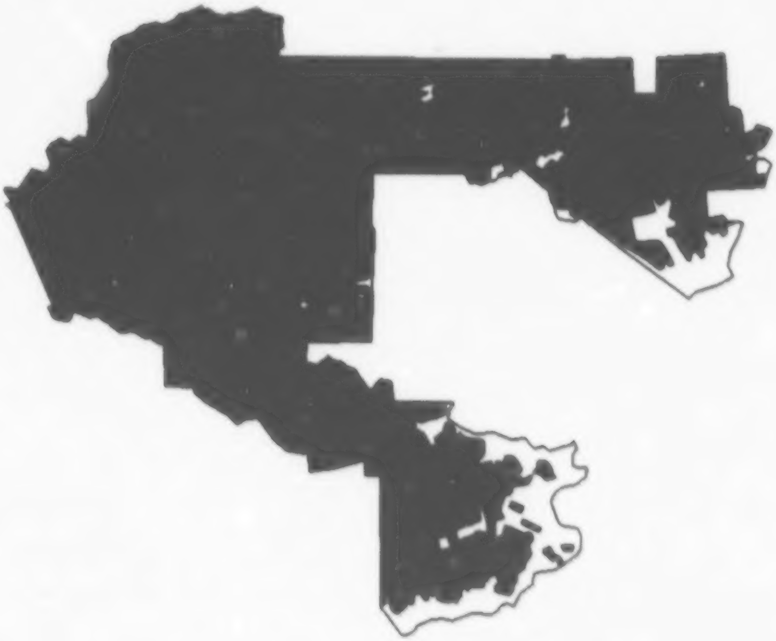


Table LOMIR9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Lower Miramichi License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	1.09	10	1.04	10	4.76	10	4.71
12	1.30	12	1.23	12	4.67	12	4.65
14	1.49	14	1.41	14	4.63	14	4.63
16	1.67	16	1.57	16	4.63	16	4.64
18	1.82	18	1.72	18	4.68	18	4.68
20	1.95	20	1.84	20	4.77	20	4.75
22	2.06	22	1.96	22	4.91	22	4.85
24	2.14	24	2.05	24	5.10	24	4.98
26	2.21	26	2.13	26	5.33	26	5.14
28	2.26	28	2.20	28	5.61	28	5.34
30	2.29	30	2.25	30	5.93	30	5.56
32	2.29	32	2.28	32	6.30	32	5.81
34	2.28	34	2.29	34	6.71	34	6.10
36	2.25	36	2.29	36	7.17	36	6.41
38	2.19	38	2.28	38	7.67	38	6.76
40	2.11	40	2.25	40	8.22	40	7.14
42	2.02	42	2.20	42	8.82	42	7.54
44	1.90	44	2.14	44	9.46	44	7.98
46	1.76	46	2.06	46	10.14	46	8.45
48	1.60	48	1.96	48	10.87	48	8.95
50	1.43	50	1.85	50	11.65	50	9.48
%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=-.2846447 C1= .1630819 C2=-.002577		%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=-.1587654 C1= .1401734 C2=-.0020002 R= .8548		%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=5.8785399 C1= .1690393 C2= .005689		%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=5.4286027 C1=-.1106533 C2= .0038329 R= .9506	
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	1.29	10-14	1.23	10-14	4.69	10-14	4.66
16-24	1.93	16-24	1.83	16-24	4.82	16-24	4.78
26+	2.05	26+	2.17	26+	7.99	26+	6.97
ALL	1.91	ALL	1.95	ALL	6.76	ALL	6.12

UPPER MIRAMICHI LICENSE



The Upper Miramichi License is located in the central northern part of the province and encompasses the upper reaches of the Little Southwest and Northwest Miramichi, Big Sevogle, South Branch Nepisiguit, Bartibog and the lower stretch of the Dungarvon River watersheds. Approximately 72 percent of the license is covered by a coniferous forest, predominantly of spruce and balsam fir, 18 percent is mixed-wood and 10 percent is covered by a deciduous forest. Approximately 59 percent of the productive forest land is in the mature development stage. Spruce and balsam fir make up 45 percent of the total merchantable volume on the license. Other predominant species by merchantable volume include cedar, red maple, white birch, jack pine, white pine, sugar maple, poplar, yellow birch and beech. Approximately 48 percent of the merchantable volume is in the 16-24 cm DBH size class, 33 percent is in the 26+ cm DBH range and 19 percent is in the 10- 14 cm DBH class.

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Table UPMIR4. Area (ha) by cover type, forest unit and development stage on the Upper Miramichi License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	 Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
S	SPBF	4342	7526	32185	90390	4894	139337	41.61
	BFSP	1946	1570	1726	66230	2569	74041	22.11
	PINE	767	2279	1825	5666	252	10789	3.22
	PSSP	0	183	733	5401	837	7154	2.14
	OTSW	24	113	461	5969	3307	9874	2.95
	TOTAL	7079	11671	36930	173656	11859	241195	72.03
SH	SPTH	357	282	2207	11129	246	14221	4.25
	SPIH	384	391	908	3511	221	5415	1.62
	BFTH	415	465	392	6446	109	7827	2.34
	BFIH	598	375	315	7020	241	8549	2.55
	TOTAL	1754	1513	3822	28106	817	36012	10.75
HS	THSP	194	527	2091	6256	86	9154	2.73
	IHSP	561	507	1064	3002	136	5270	1.57
	THBF	198	353	781	3379	5	4716	1.41
	IHBF	759	783	414	2583	408	4947	1.48
	TOTAL	1712	2170	4350	15220	635	24087	7.19
H	TOHW	876	5270	6543	6064	37	18790	5.61
	THIH	408	366	428	472	0	1674	.50
	IHHW	3999	1925	1745	1898	1219	10786	3.22
	IHTH	1265	419	322	314	0	2320	.69
	TOTAL	6548	7980	9038	8748	1256	33570	10.02
ALL COVER TYPES	TOTAL	17093	23334	54140	225730	14567	334864	100.00
ALL COVER TYPES	PERCENT	5.10	6.97	16.17	67.41	4.35	100.00	

Figure UPMIR3. Area by cover type and development stage.

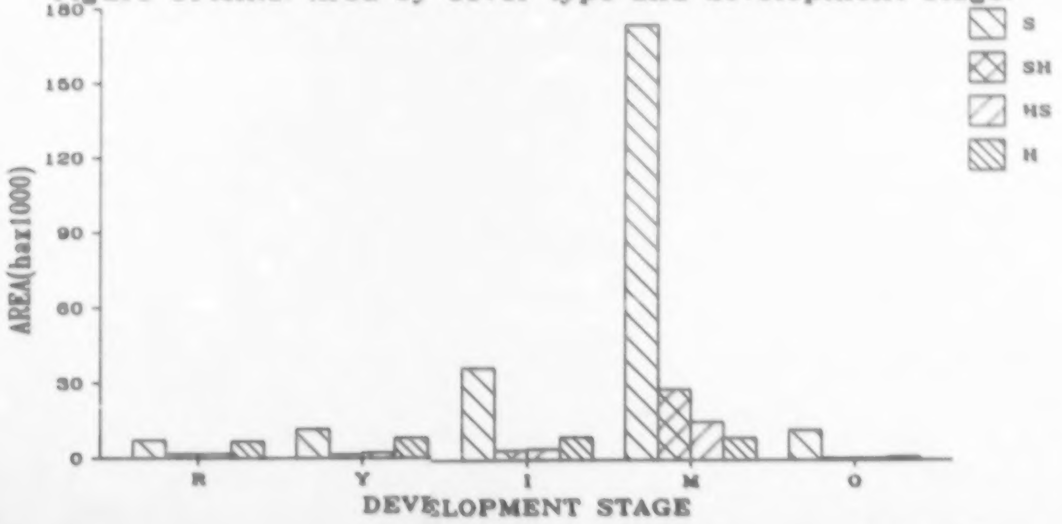


Table UPMIR5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Upper Miramichi License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	420589	4199534	13532147	562798	18715068	39.59
		HW	22574	231173	645281	12045	911073	1.93
	BFSP	SW	64982	252184	10922013	376811	11615990	24.57
		HW	19148	36455	818052	44578	918233	1.94
	PINE	SW	140665	264018	802749	31381	1238813	2.62
		HW	6836	0	18414	572	25822	.05
	PSSP	SW	6313	51849	261404	49864	369430	.78
		HW	225	967	0	0	1192	.00
	OTSW	SW	8293	54303	1004050	612630	1679276	3.55
		HW	557	4025	99089	32288	135959	.29
SH	SPTH	SW	11484	252029	1243542	27225	1534280	3.25
		HW	7107	74554	478560	18314	578535	1.22
	SPIH	SW	12392	103355	496782	23868	636397	1.35
		HW	7857	27063	120683	11327	166930	.35
	BFTH	SW	35265	39354	622418	11969	709006	1.50
		HW	10565	14038	287928	6221	318752	.67
	BFIH	SW	23930	37400	790426	20753	872509	1.85
		HW	4591	8091	251772	7299	271753	.57
HS	THSP	SW	33552	179552	507170	3745	724019	1.53
		HW	16369	124244	443272	6376	590261	1.25
	IHSP	SW	26296	68744	243953	6843	345836	.73
		HW	22766	68275	188423	9779	289243	.61
	THBF	SW	26354	55065	282996	291	364706	.77
		HW	14368	45822	228506	386	289082	.61
	IHBF	SW	49070	38160	236135	37271	360636	.76
		HW	29570	20761	161972	25560	237863	.50
H	TOHW	SW	199294	296731	277052	1777	774854	1.64
		HW	435478	601161	502181	3895	1542715	3.26
	THIH	SW	13942	20925	20487	0	55354	.12
		HW	17635	28798	33242	0	79675	.17
	INHW	SW	79263	70557	75934	96322	322076	.68
		HW	55793	148453	192926	79007	476179	1.01
	INTH	SW	25390	14430	8044	0	47864	.10
		HW	17531	23113	32511	0	73155	.15

Table UPMIR5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Upper Miramichi License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	640842	4821888	26522363	1633484	33618577	71.12
	HW	49340	272620	1580836	89483	1992279	4.21
	TOTAL	690182	5094508	28103199	1722967	35610856	75.33
SH	SW	83071	432138	3153168	83815	3752192	7.94
	HW	30120	123746	1138943	43161	1335970	2.83
	TOTAL	113191	555884	4292111	126976	5088162	10.76
HS	SW	135272	341521	1270254	48150	1795197	3.80
	HW	83073	259102	1022173	42101	1406449	2.98
	TOTAL	218345	600623	2292427	90251	3201646	6.77
H	SW	317889	402643	381517	98099	1200148	2.54
	HW	526437	801525	760860	82902	2171724	4.59
	TOTAL	844326	1204168	1142377	181001	3371872	7.13
ALL COVER TYPES	SW	1177074	5998190	31327302	1863548	40366114	85.39
	HW	688970	1456993	4502812	257647	6906422	14.61
	TOTAL	1866044	7455183	35830114	2121195	47272536	100.00
ALL COVER TYPES (%)	SW	2.49	12.69	66.27	3.94	85.39	
	HW	1.46	3.08	9.53	.55	14.61	
	TOTAL	3.95	15.77	75.79	4.49	100.00	

Table UPMIR6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Upper Miramichi License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	56	130	150	115	139
		HW	3	7	7	2	7
	BFSP	SW	41	146	165	147	161
		HW	12	21	12	17	13
	PINE	SW	62	145	142	125	124
		HW	3	0	3	2	3
	PESP	SW	34	71	48	60	52
		HW	1	1	0	0	0
	OTSW	SW	73	118	168	185	170
		HW	5	9	17	10	14
SH	SPTH	SW	41	116	112	111	111
		HW	25	34	43	76	42
	SPIH	SW	32	114	141	108	126
		HW	20	30	34	51	33
	BFTH	SW	76	100	97	110	96
		HW	23	36	45	57	43
	BFIH	SW	64	119	113	86	110
		HW	12	26	36	30	34
HS	THSP	SW	64	86	81	44	81
		HW	31	59	71	76	66
	INSP	SW	52	65	81	50	73
		HW	45	64	63	72	61
	THBF	SW	75	71	86	58	81
		HW	41	59	68	77	64
	INBF	SW	63	92	91	91	86
		HW	38	50	63	63	57
H	TOHW	SW	38	45	46	48	43
		HW	83	92	83	105	86
	THIH	SW	38	49	43	0	44
		HW	48	67	70	0	63
	INHW	SW	41	40	40	79	47
		HW	29	85	102	68	70
	INTH	SW	61	45	26	0	43
		HW	42	72	104	0	69

Table UPMIR7. Gross merchantable volume (m3) by species and development stage on the Upper Miramichi License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	639580	3865939	17369446	837065	22712030	48.04
Balsam Fir	285388	1204233	10722814	520497	12732932	26.94
Jack Pine	91543	326081	724644	35355	1177623	2.49
Red Pine	1876	19035	22336	0	43247	.09
White Pine	76881	272289	593763	16797	959730	2.03
Cedar	19415	246769	1351363	422861	2040408	4.32
Hemlock	52483	33197	298635	24769	409084	.87
Larch	9908	30647	244301	6204	291060	.62
TOTAL SOFTWOOD	1177074	5998190	31327302	1863548	40366114	85.39
Red Maple	87059	349978	1523056	51994	2012087	4.26
Sugar Maple	193198	323561	341611	19575	877945	1.86
Yellow Birch	70618	142452	590366	30343	833779	1.76
Beech	173614	167892	213173	9032	563711	1.19
Other Tolerant	1421	5281	7509	727	14938	.03
Total Tolerant	525910	989164	2675715	111671	4302460	9.10
White Birch	68198	175002	1238815	55580	1537595	3.25
Poplar	80176	238249	510687	82880	911992	1.93
Other Intolerant	14686	54578	77595	7516	154375	.33
Total Intolerant	163060	467829	1827097	145976	2603962	5.51
TOTAL HARDWOOD	688970	1456993	4502812	257647	6906422	14.61
TOTAL ALL SPECIES	1866044	7455183	35830114	2121195	47272536	100.00
PERCENT	3.95	15.77	75.79	4.49	100.00	

Figure UPMIR4a. Total volume by species class and development

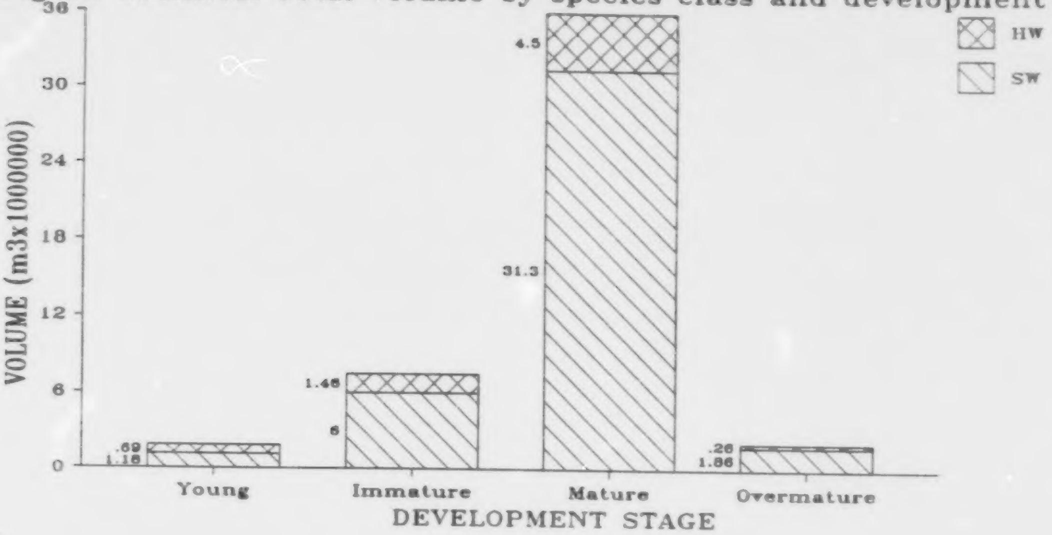


Fig. UPMIR4b. Volume per ha by species class and development.

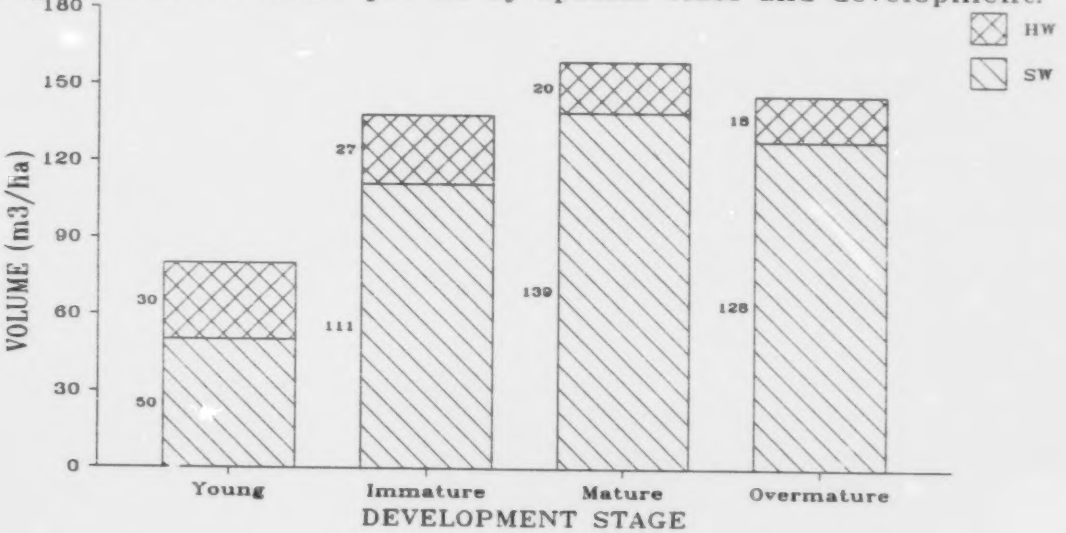


Figure UPMIR4c. Total area (hax1000) by development stage.

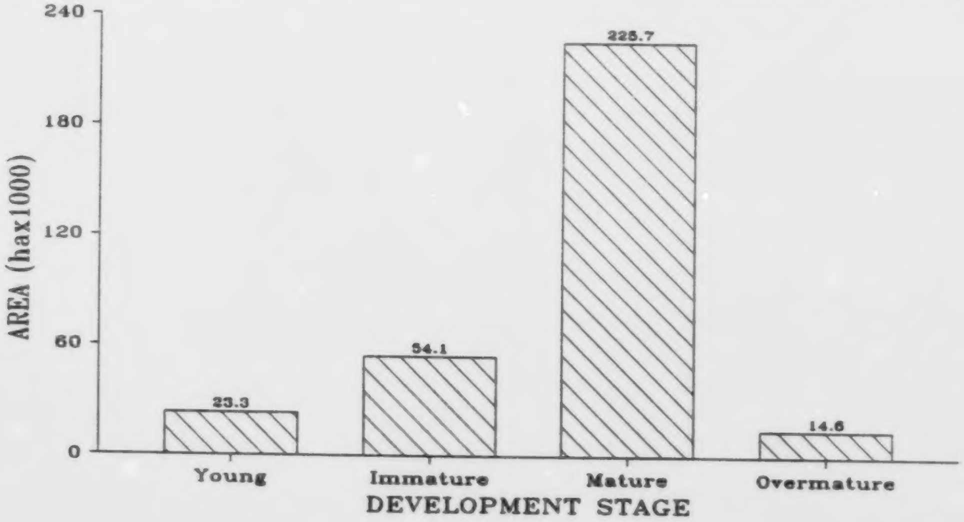


Table UPMIR8. Gross merchantable volume (m3) by species and DBH class (cm) on the Upper Miramichi License.

SPECIES	DBH CLASS			TOTAL	PERCENT
	10-14	16-24	26+		
Spruce	3935207	11022287	7754535	22712030	48.04
Balsam Fir	3152447	7689016	1891468	12732932	26.94
Jack Pine	186206	714626	276791	1177623	2.49
Red Pine	0	6177	37070	43247	.09
White Pine	40744	149392	769594	959730	2.03
Cedar	98646	576298	1365464	2040408	4.32
Hemlock	0	35190	373894	409084	.87
Larch	48510	160083	82467	291060	.62
TOTAL SOFTWOOD	7461760	20353070	12551284	40366114	85.39
Red Maple	421239	891771	699077	2012087	4.26
Sugar Maple	123654	300892	453399	877945	1.86
Yellow Birch	39008	160905	633867	833779	1.76
Beech	123553	220079	220079	563711	1.19
Other Tolerant	4979	4981	4979	14938	.03
Total Tolerant	712432	1578628	2011401	4302460	9.10
White Birch	557927	579893	399775	1537595	3.25
Poplar	49972	143669	718351	911992	1.93
Other Intolerant	59026	59025	36323	154375	.33
Total Intolerant	666925	782588	1154448	2603962	5.51
TOTAL HARDWOOD	1379357	2361216	3165849	6906422	14.61
TOTAL ALL SPECIES	8841118	22714286	15717132	47272536	100.00
PERCENT	18.70	48.05	33.25	100.00	

Figure UPMIR5. Volume by species class and DBH class.

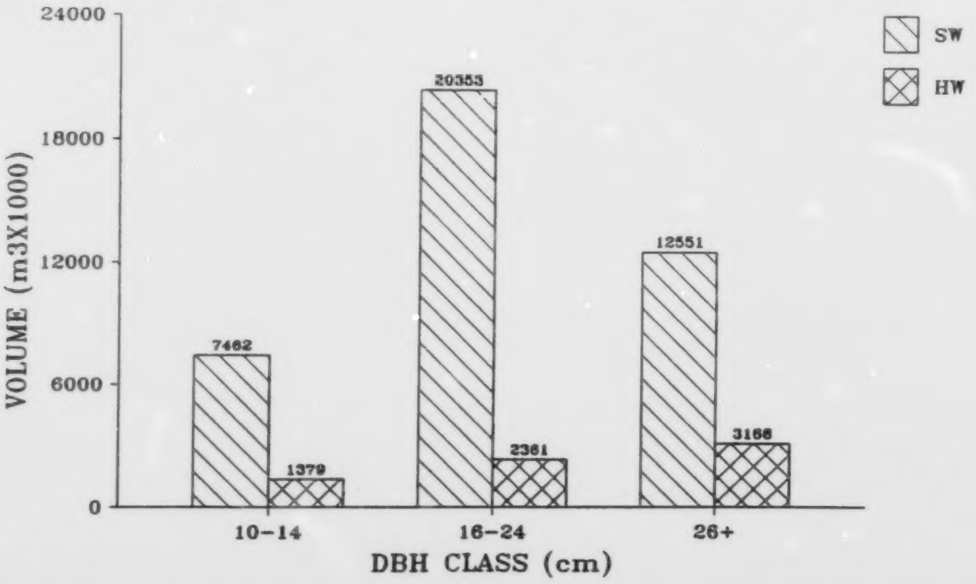
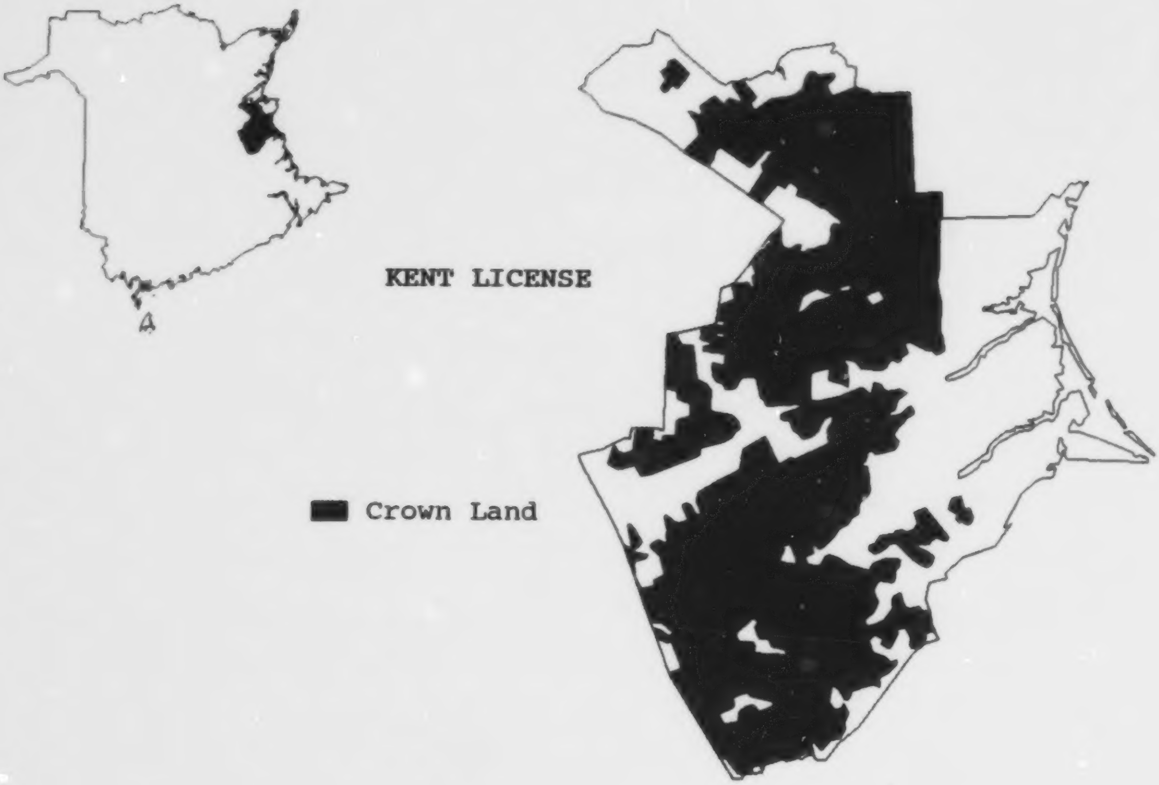


Table UPMIR9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Upper Miramichi License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	1.73	10	1.72	10	3.97	10	4.00
12	1.71	12	1.70	12	4.36	12	4.36
14	1.76	14	1.73	14	4.76	14	4.72
16	1.89	16	1.82	16	5.18	16	5.10
18	2.09	18	1.96	18	5.61	18	5.48
20	2.37	20	2.16	20	6.07	20	5.87
22	2.71	22	2.41	22	6.54	22	6.27
24	3.13	24	2.72	24	7.02	24	6.68
26	3.63	26	3.09	26	7.53	26	7.10
28	4.19	28	3.51	28	8.05	28	7.53
30	4.83	30	3.98	30	8.58	30	7.96
32	5.54	32	4.51	32	9.14	32	8.41
34	6.33	34	5.10	34	9.71	34	8.86
36	7.19	36	5.74	36	10.29	36	9.32
38	8.12	38	6.43	38	10.90	38	9.80
40	9.12	40	7.18	40	11.52	40	10.28
42	10.20	42	7.99	42	12.16	42	10.76
44	11.35	44	8.85	44	12.81	44	11.26
46	12.57	46	9.77	46	13.48	46	11.77
48	13.87	48	10.74	48	14.17	48	12.29
50	15.23	50	11.77	50	14.88	50	12.81

%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=2.9122454 C1= .2098426 C2= .009125	%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=2.6709416 C1=-.1638309 C2= .0069162 R= .8926	%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=2.3000342 C1= .1461302 C2= .002108	%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=2.3478451 C1= .1540322 C2= .0011038 R= .9718

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	1.73	10-14	1.72	10-14	4.36	10-14	4.36
16-24	2.44	16-24	2.21	16-24	6.08	16-24	5.88
26+	8.63	26+	6.82	26+	11.02	26+	9.86
ALL	6.17	ALL	4.99	ALL	8.89	ALL	8.13



The Kent License, the smallest in area of the ten Crown Licenses, is located in the central eastern portion of the province and encompasses the lower stretches of the Bay du Vin, Kouchibouguac and Richibucto River watersheds. Approximately 52 percent of the license is covered by a coniferous forest, predominantly of spruce, 15 percent is deciduous and 33 percent is covered by a mixed-wood forest. Approximately 64 percent of productive forest land is evenly distributed in the immature-old and mature development stages. Spruce makes up 45 percent of the total merchantable volume on the license. Other predominant species by merchantable volume include poplar, red maple, cedar, jack pine, white birch, balsam fir, white pine, larch and sugar maple. Approximately 48 percent of the merchantable volume is in the 16-24 cm DBH size class, 27 percent is in the 26+ cm DBH range and 25 percent is in the 10- 14 cm DBH class.

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Table KENT4. Area (ha) by cover type, forest unit and development stage on the Kent License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	772	3554	7399	7276	22	19023	35.32
	BFSP	758	236	324	312	6	1636	3.04
	PINE	46	831	1343	295	0	2515	4.67
	PSSP	163	431	668	396	10	1668	3.10
	OTSW	47	146	555	2158	132	3038	5.64
	TOTAL	1786	5198	10289	10437	170	27880	51.76
SH	SPTH	52	188	1945	1931	44	4160	7.72
	SPIH	178	458	840	895	13	2384	4.43
	BFTH	219	121	550	470	0	1360	2.53
	BFIH	305	47	204	196	19	771	1.43
	TOTAL	754	814	3539	3492	76	8675	16.11
HS	THSP	67	265	1664	737	0	2733	5.07
	IHSP	349	546	1287	1532	63	3777	7.01
	THBF	137	92	425	195	0	849	1.58
	IHBF	357	133	332	765	24	1611	2.99
	TOTAL	910	1036	3708	3229	87	8970	16.65
H	TOHW	69	272	537	292	0	1170	2.17
	THIH	22	202	383	114	0	721	1.34
	INHW	1095	539	983	1940	792	5349	9.93
	IHTH	96	130	401	454	13	1094	2.03
	TOTAL	1282	1143	2304	2800	805	8334	15.47
ALL COVER TYPES	TOTAL	4732	8191	19840	19958	1138	53859	100.00
ALL COVER TYPES	PERCENT	8.79	15.21	36.84	37.06	2.11	100.00	

Figure KENT3. Area by cover type and development stage.

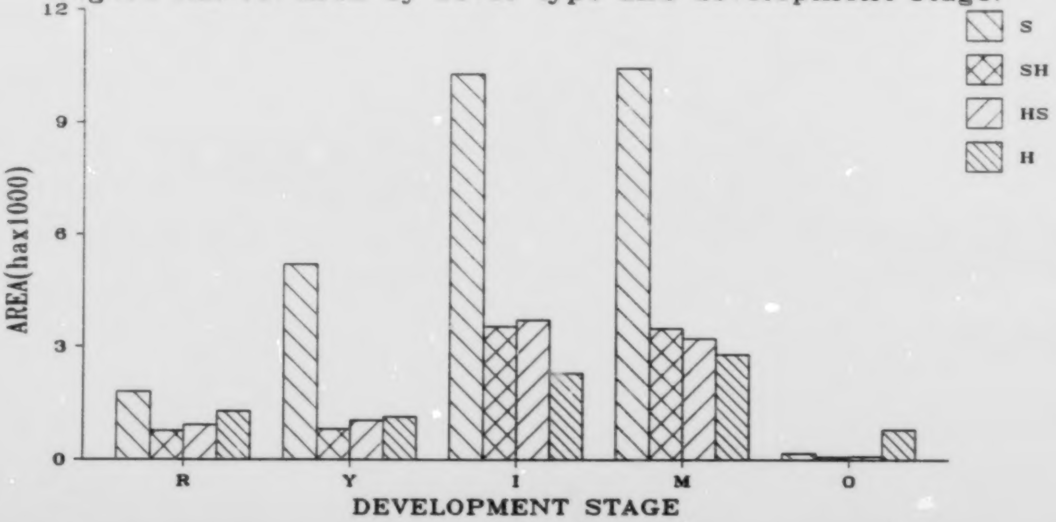


Table KENT5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Kent License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	260194	680430	690590	3245	1634459	32.82
		HW	16153	57306	57129	380	130968	2.63
	BFSP	SW	11639	32468	44414	922	89443	1.80
		HW	1541	6539	5458	113	13651	.27
	PINE	SW	74200	153782	45523	0	273505	5.49
		HW	0	10747	2864	0	13611	.27
	PSSP	SW	14875	23960	27969	577	67381	1.35
		HW	530	0	912	0	1442	.03
	OTSW	SW	10695	57490	266956	23492	358633	7.20
		HW	716	8882	30706	1605	41909	.84
SH	SPTH	SW	7665	109650	118499	4836	240650	4.83
		HW	4742	69062	78863	3253	155920	3.13
	SPIH	SW	27493	61643	61548	1420	152104	3.05
		HW	5676	24858	37488	673	68695	1.38
	BFTH	SW	8792	42125	28348	0	79265	1.59
		HW	2946	25053	23260	0	51259	1.03
	BFIH	SW	3146	10658	17931	1612	33347	.67
		HW	552	7248	7540	568	15908	.32
HS	THSP	SW	16483	66382	57919	0	140784	2.83
		HW	9654	89176	53976	0	152806	3.07
	IHSP	SW	23335	29221	62501	4717	119774	2.41
		HW	15825	78139	110758	6741	211463	4.25
	THBF	SW	6674	17995	11989	0	36658	.74
		HW	3613	27205	13713	0	44531	.89
	IHBF	SW	8141	13607	28666	917	51331	1.03
		HW	4965	17654	60203	1926	84748	1.70
H	TOHW	SW	9669	12881	8872	0	31422	.63
		HW	26271	54007	29896	0	110174	2.21
	THIH	SW	8574	6185	4068	0	18827	.38
		HW	14333	26940	10615	0	51888	1.04
	INHW	SW	9707	22512	73089	32033	137341	2.76
		HW	9707	62429	145571	70668	288375	5.79
	INTH	SW	718	8656	8983	266	18623	.37
		HW	4594	18438	34847	1033	58912	1.18

Table KENT5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Kent License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	371603	948130	1075452	28236	2423421	48.66
	HW	18940	83474	97069	2098	201581	4.05
	TOTAL	390543	1031604	1172521	30334	2625002	52.71
SH	SW	47096	224076	226326	7868	505366	10.15
	HW	13916	126221	147151	4494	291782	5.86
	TOTAL	61012	350297	373477	12362	797148	16.01
HS	SW	54633	127205	161075	5634	348547	7.00
	HW	34057	212174	238650	8667	493548	9.91
	TOTAL	88690	339379	399725	14301	842095	16.91
H	SW	28668	50234	95012	32299	206213	4.14
	HW	54905	161814	220929	71701	509349	10.23
	TOTAL	83573	212048	315941	104000	715562	14.37
ALL COVER TYPES	SW	502000	1349645	1557865	74037	3483547	69.95
	HW	121818	583683	703799	86960	1496260	30.05
	TOTAL	623818	1933328	2261664	160997	4979807	100.00
ALL COVER TYPES (%)	SW	10.08	27.10	31.28	1.49	69.95	
	HW	2.45	11.72	14.13	1.75	30.05	
	TOTAL	12.53	38.82	45.42	3.23	100.00	

Table KENT6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Kent License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	73	92	95	148	90
		HW	5	8	8	17	7
	BFSP	SW	49	100	142	154	102
		HW	7	20	17	19	16
	PINE	SW	89	115	154	0	111
		HW	0	8	10	0	6
	PSSP	SW	35	36	71	58	45
		HW	1	0	2	0	1
	OTSW	SW	73	104	124	178	120
		HW	5	16	14	12	14
SH	SPTH	SW	41	56	61	110	59
		HW	25	36	41	74	38
	SPIH	SW	60	73	69	109	69
		HW	12	30	42	52	31
	BFTH	SW	73	77	60	0	69
		HW	24	46	49	0	45
	BFIH	SW	67	52	91	85	72
		HW	12	36	38	30	34
HS	THSP	SW	62	40	79	0	53
		HW	36	54	73	0	57
	IHSP	SW	43	23	41	75	35
		HW	29	61	72	107	62
	THBF	SW	73	42	61	0	51
		HW	39	64	70	0	63
	IHBF	SW	61	41	37	38	41
		HW	37	53	79	80	68
H	TOHW	SW	36	24	30	0	29
		HW	97	101	102	0	100
	THIH	SW	42	16	36	0	27
		HW	71	70	93	0	74
	INHW	SW	18	23	38	40	32
		HW	18	64	75	89	68
	IHTH	SW	6	22	20	20	19
		HW	35	46	77	79	59

Table KENT7. Gross merchantable volume (m3) by species and development stage on the Kent License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	273137	901360	996667	40488	2211652	44.41
Balsam Fir	58344	103740	136662	9092	307838	6.18
Jack Pine	109152	117810	54812	1808	283582	5.69
Red Pine	5821	628	4933	0	11382	.23
White Pine	16673	91473	51441	1132	160719	3.23
Cedar	17625	87035	283764	21159	409583	8.22
Hemlock	2797	7089	5560	312	15758	.32
Larch	18451	40510	24026	46	83033	1.67
TOTAL SOFTWOOD	502000	1349645	1557865	74037	3483547	69.95
Red Maple	22613	219284	270968	18073	530938	10.66
Sugar Maple	17964	28899	23367	1574	71804	1.44
Yellow Birch	10024	9663	27517	1314	48518	.97
Beech	16220	5265	9222	402	31109	.62
Other Tolerant	113	640	218	35	1006	.02
Total Tolerant	66934	263751	331292	21398	683375	13.72
White Birch	15694	89658	136425	6487	248264	4.99
Poplar	35729	210759	229432	58008	533928	10.72
Other Intolerant	3461	19515	6650	1067	30693	.62
Total Intolerant	54884	319932	372507	65562	812885	16.32
TOTAL HARDWOOD	121818	583683	703799	86960	1496260	30.05
TOTAL ALL SPECIES	623818	1933328	2261664	160997	4979807	100.00
PERCENT	12.53	38.82	45.42	3.23	100.00	

Figure KENT4a. Total volume by species class and development.

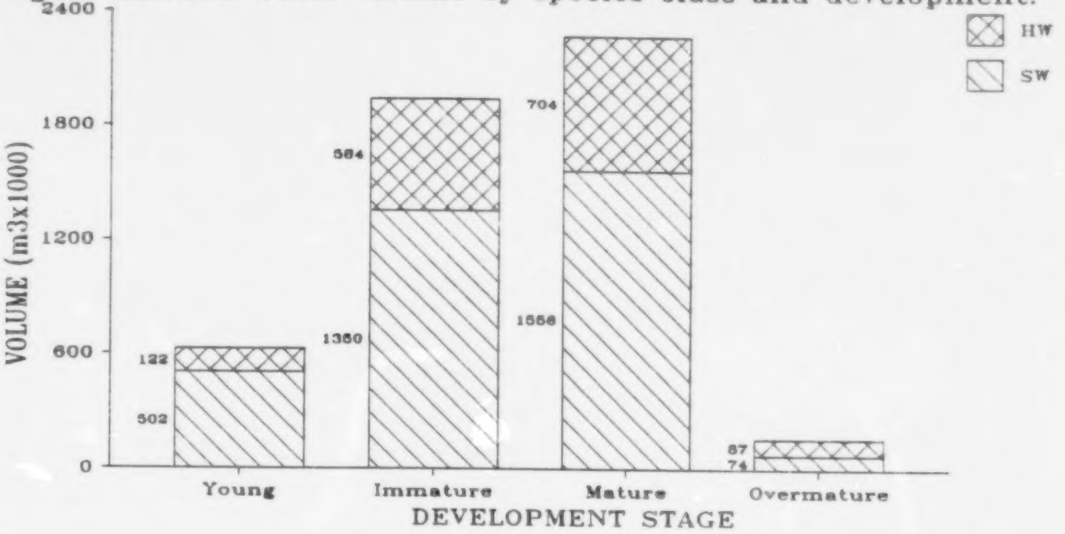


Fig. KENT4b. Volume per ha by species class and development.

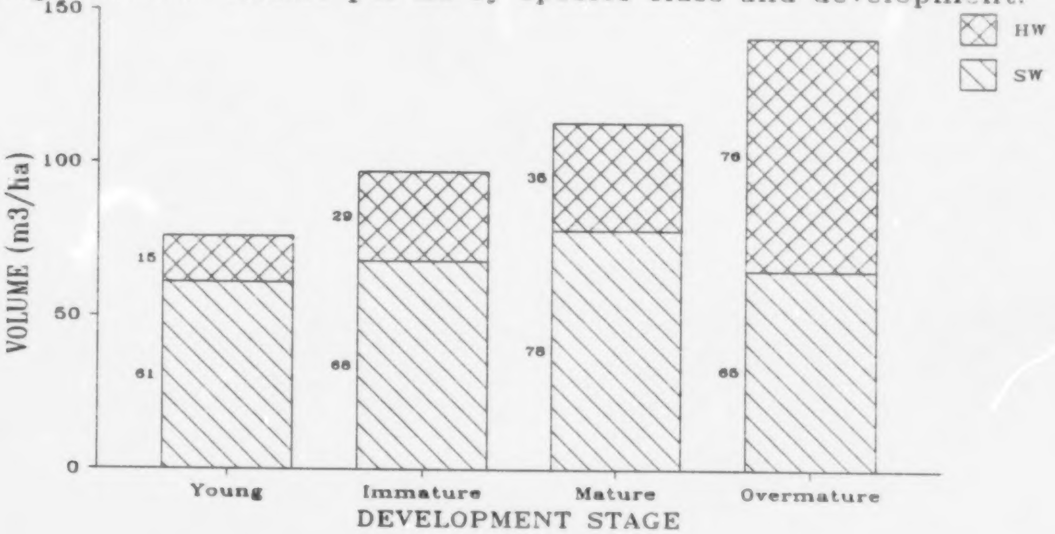


Figure KENT4c. Total area (hax1000) by development stage.

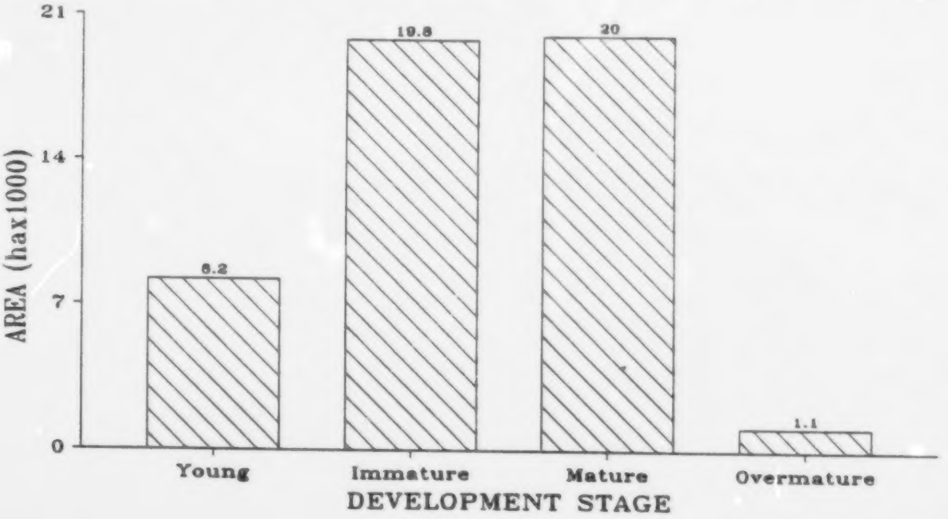


Table KENT8. Gross merchantable volume (m3) by species and DBH class (cm) on the Kent License.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	683655	1106073	421924	2211652	44.41
Balsam Fir	96563	170445	40830	307838	6.18
Jack Pine	70389	149386	63807	283582	5.69
Red Pine	1898	7588	1896	11382	.23
White Pine	5109	17652	137958	160719	3.23
Cedar	71501	215826	122256	409583	8.22
Hemlock	2131	6814	6814	15758	.32
Larch	13048	43889	26096	83033	1.67
TOTAL SOFTWOOD	944294	1717672	821580	3483547	69.95
Red Maple	147227	264549	119163	530938	10.66
Sugar Maple	7558	27083	37163	71804	1.44
Yellow Birch	5599	22392	20527	48518	.97
Beech	9898	14142	7069	31109	.62
Other Tolerant	0	504	503	1006	.02
Total Tolerant	170281	328669	184425	683375	13.72
White Birch	65924	122028	60312	248264	4.99
Poplar	45030	196449	292448	533928	10.72
Other Intolerant	22139	5534	3020	30693	.62
Total Intolerant	133093	324012	355780	812885	16.32
TOTAL HARDWOOD	303374	652681	540205	1496260	30.05
TOTAL ALL SPECIES	1247668	2370354	1361785	4979807	100.00
PERCENT	25.05	47.60	27.35	100.00	

Figure KENT5. Volume by species class and DBH class.

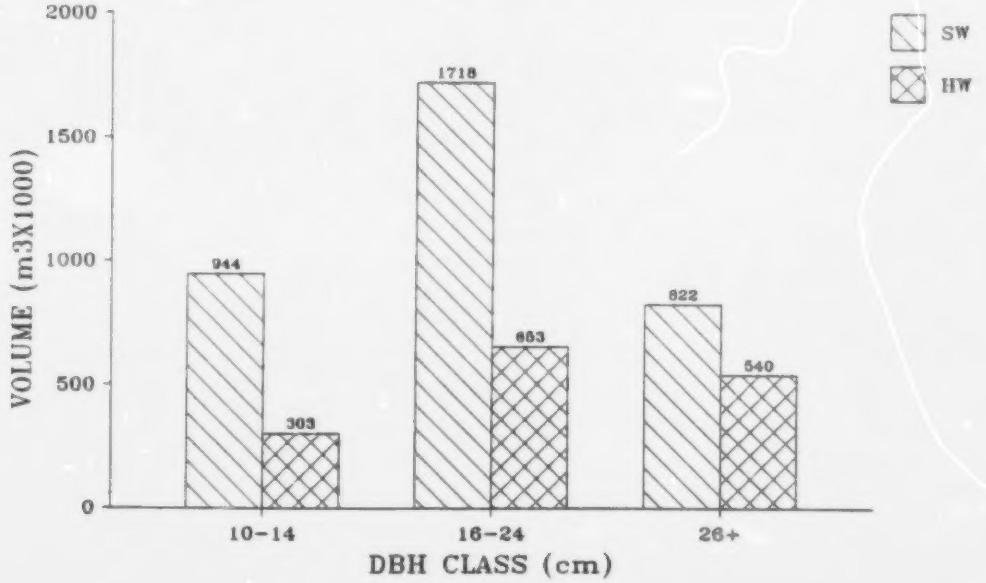


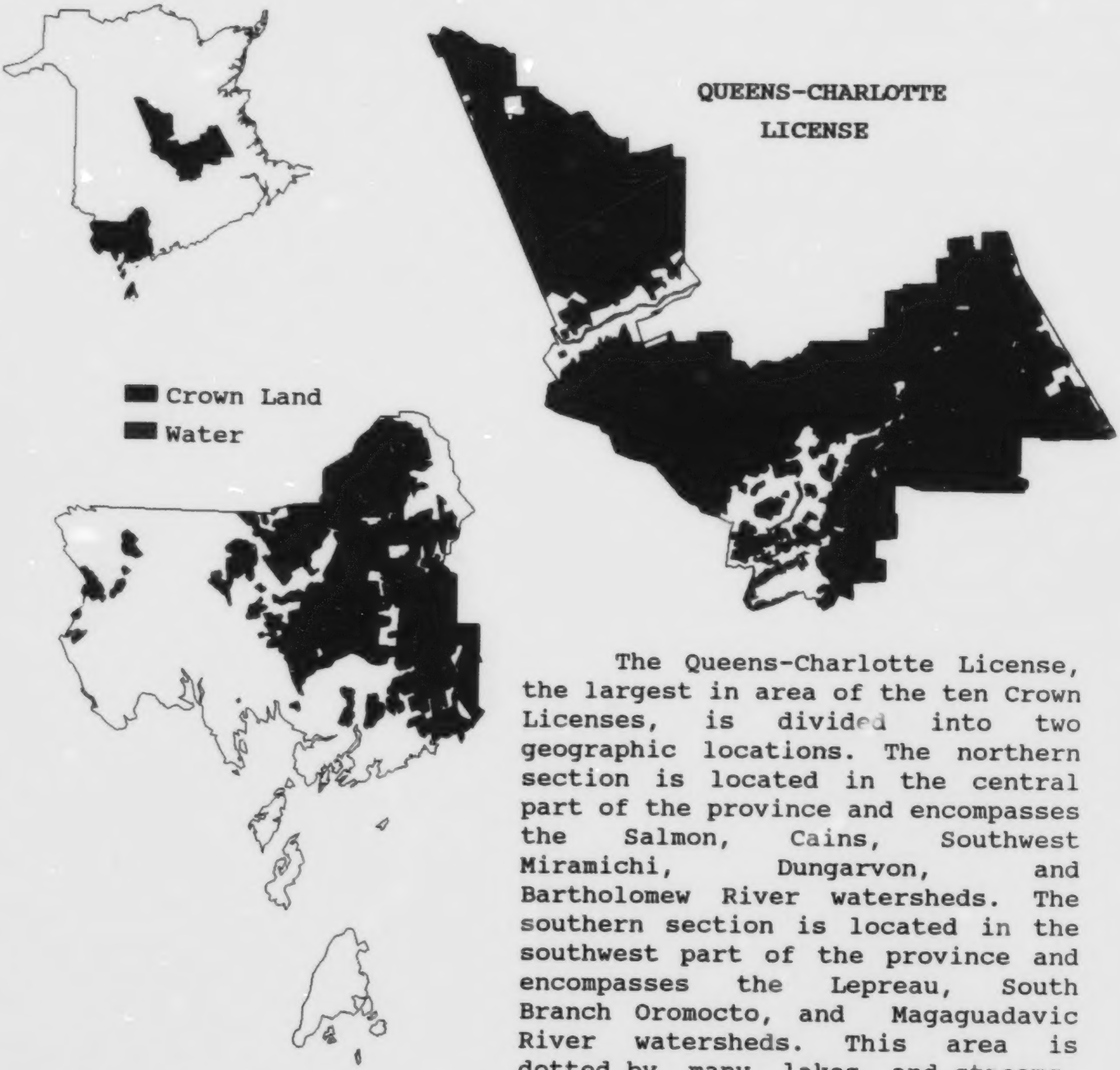
Table KENT9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Kent License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	.49	10	.46	10	4.76	10	4.71
12	.62	12	.58	12	4.67	12	4.65
14	.74	14	.69	14	4.63	14	4.63
16	.86	16	.79	16	4.63	16	4.64
18	.96	18	.89	18	4.68	18	4.68
20	1.06	20	.98	20	4.77	20	4.75
22	1.14	22	1.06	22	4.91	22	4.85
24	1.22	24	1.14	24	5.10	24	4.98
26	1.28	26	1.21	26	5.33	26	5.14
28	1.34	28	1.27	28	5.61	28	5.34
30	1.39	30	1.32	30	5.93	30	5.56
32	1.43	32	1.37	32	6.30	32	5.81
34	1.46	34	1.41	34	6.71	34	6.10
36	1.48	36	1.44	36	7.17	36	6.41
38	1.49	38	1.46	38	7.67	38	6.76
40	1.49	40	1.48	40	8.22	40	7.14
42	1.48	42	1.49	42	8.82	42	7.54
44	1.46	44	1.49	44	9.46	44	7.98
46	1.43	46	1.48	46	10.14	46	8.45
48	1.40	48	1.47	48	10.87	48	8.95
50	1.35	50	1.45	50	11.65	50	9.48

%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)	%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)
C0=-.3149705	C0=-.2532946	C0=5.8785399	C0=5.4286027
C1= .0920345	C1= .0801244	C1=-.1690393	C1=-.1106533
C2= .001174	C2=-.0009215	C2= .005689	C2= .0038329
	R= .8205		R= .9506

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	.62	10-14	.58	10-14	4.69	10-14	4.66
16-24	1.05	16-24	.97	16-24	4.82	16-24	4.78
26+	1.42	26+	1.41	26+	7.99	26+	6.97
ALL	1.22	ALL	1.19	ALL	6.76	ALL	6.12

QUEENS-CHARLOTTE LICENSE



The Queens-Charlotte License, the largest in area of the ten Crown Licenses, is divided into two geographic locations. The northern section is located in the central part of the province and encompasses the Salmon, Cains, Southwest Miramichi, Dungarvon, and Bartholomew River watersheds. The southern section is located in the southwest part of the province and encompasses the Lepreau, South Branch Oromocto, and Magaguadavic River watersheds. This area is dotted by many lakes and streams. Approximately 58 percent of the license is covered by a coniferous forest, predominantly of spruce, 21 percent is deciduous and 21 percent is covered by a mixed-wood forest. Approximately 51 percent of the productive forest land is in the mature development stage. Spruce makes up 43 percent of the total merchantable volume on the license. Other predominant species by volume include balsam fir, red maple, cedar, white birch, jack pine, yellow birch, white pine, poplar, sugar maple, beech, red pine and hemlock. Approximately 43 percent of the merchantable volume is in the 26+ cm DBH size class, 42 percent is in the 16-24 cm DBH range and 15 percent is in the 10-14 cm DBH class.

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Table Q-C4. Area (ha) by cover type, forest unit and development stage on the Queens-Charlotte License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE					TOTAL	PERCENT
		Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	8596	5231	39545	107222	1563	162157	40.48
	BFSP	4828	800	1251	10847	538	18264	4.56
	PINE	524	819	11149	11384	18	23894	5.97
	PSSP	171	78	1982	9667	413	12311	3.07
	OTSW	48	159	469	11557	1545	13778	3.44
	TOTAL	14167	7087	54396	150677	4077	230404	57.52
SH	SPTH	585	162	4060	19197	333	24337	6.08
	SPIH	513	223	3880	7141	28	11785	2.94
	BFTH	546	103	436	2158	16	3259	.81
	BFIH	777	284	301	542	52	1956	.49
	TOTAL	2421	772	8677	29038	429	41337	10.32
HS	THSP	556	406	3704	16725	209	21600	5.39
	IHSP	1232	359	4498	9448	28	15565	3.89
	THBF	759	489	578	841	7	2674	.67
	IHBF	1499	313	726	615	18	3171	.79
	TOTAL	4046	1567	9506	27629	262	43010	10.74
H	TOHW	1673	7411	13357	15415	28	37884	9.46
	THIH	2044	848	2579	3800	21	9292	2.32
	INHW	3879	979	8145	13599	977	27579	6.89
	IHTH	3350	510	2916	4263	11	11050	2.76
	TOTAL	10946	9748	26997	37077	1037	85805	21.42
ALL COVER TYPES	TOTAL	31580	19174	99576	244421	5805	400556	100.00
ALL COVER TYPES	PERCENT	7.88	4.79	24.86	61.02	1.45	100.00	

Figure Q-C3. Area by cover type and development stage.

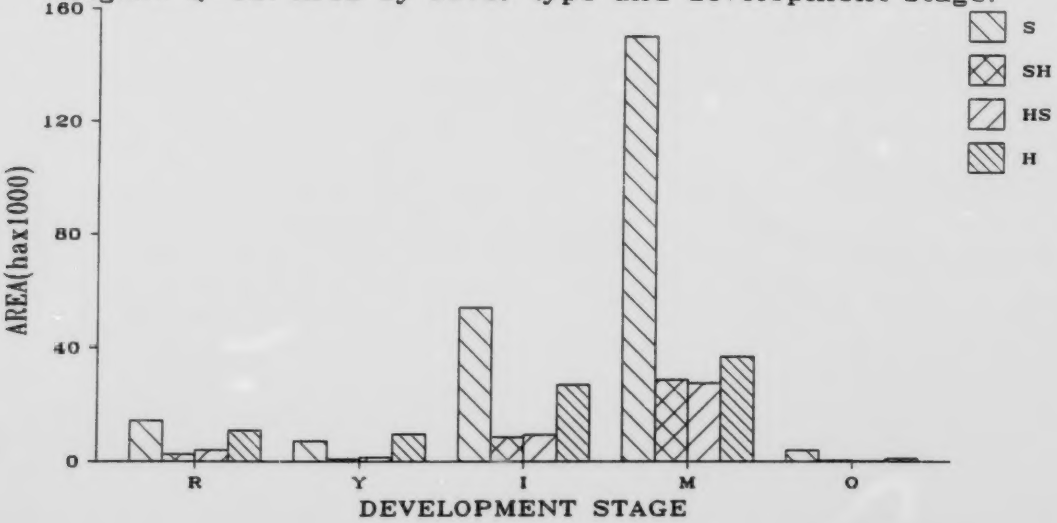


Table Q-C5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Queens-Charlotte License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	171199	3487992	13181826	230383	17071400	36.39
		HW	23300	396043	1385761	20630	1825734	3.89
	BFSP	SW	39505	94672	1649192	79158	1862527	3.97
		HW	5228	26897	192093	9689	233907	.50
	PINE	SW	86184	1343044	1741158	2297	3172683	6.76
		HW	0	132296	103653	42	235991	.50
	PSSP	SW	2680	78700	756470	24595	862445	1.84
		HW	95	3396	25618	0	29109	.06
	OTSW	SW	11705	50742	1738962	274392	2075801	4.43
		HW	786	3438	198434	18746	221404	.47
SH	SPTH	SW	6590	343480	1998228	36772	2385070	5.08
		HW	4078	186411	816741	24736	1031966	2.20
	SPIH	SW	13391	292129	556101	2993	864614	1.84
		HW	2765	114189	265404	1420	383778	.82
	BFTH	SW	7454	33434	233604	1787	276279	.59
		HW	2499	19883	82649	928	105959	.23
	BFIH	SW	19112	17573	49534	4473	90692	.19
		HW	3353	11025	20830	1573	36781	.08
HS	THSP	SW	25203	294863	1467279	9124	1796469	3.83
		HW	14762	218796	1173171	15532	1422261	3.03
	IHSP	SW	15328	205931	523894	2049	747202	1.59
		HW	10396	252516	492242	2930	758084	1.62
	THBF	SW	35560	25781	51658	388	113387	.24
		HW	19253	28917	59082	514	107766	.23
	IHBF	SW	19174	39201	30694	874	89943	.19
		HW	11695	43866	40219	1145	96925	.21
H	TOHW	SW	325353	360642	512759	1359	1200113	2.56
		HW	711111	1377515	1478646	2976	3570248	7.61
	THIH	SW	46109	77533	140065	767	264474	.56
		HW	50006	164353	366450	2006	582815	1.24
	INHW	SW	28488	201133	387697	37578	654896	1.40
		HW	24837	542854	1231362	91416	1890469	4.03
	IHTH	SW	2830	102490	122927	305	228552	.49
		HW	18095	184151	414978	1038	618262	1.32

Table Q-C5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Queens-Charlotte License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	311273	5055150	19067608	610825	25044856	53.39
	HW	29409	562070	1905559	49107	2546145	5.43
	TOTAL	340682	5617220	20973167	659932	27591001	58.82
SH	SW	46547	686616	2837467	46025	3616655	7.71
	HW	12695	331508	1185624	28657	1558484	3.32
	TOTAL	59242	1018124	4023091	74682	5175139	11.03
HS	SW	95265	565776	2073525	12435	2747001	5.86
	HW	56106	544095	1764714	20121	2385036	5.08
	TOTAL	151371	1109871	3838239	32556	5132037	10.94
H	SW	402780	741798	1163448	40009	2348035	5.01
	HW	804049	2268873	3491436	97436	6661794	14.20
	TOTAL	1206829	3010671	4654884	137445	9009829	19.21
ALL COVER TYPES	SW	855865	7049340	25142048	709294	33756547	71.96
	HW	902259	3706546	8347333	195321	13151459	28.04
	TOTAL	1758124	10755886	33489381	904615	46908006	100.00
ALL COVER TYPES (%)	SW	1.82	15.03	53.60	1.51	71.96	
	HW	1.92	7.90	17.80	.42	28.04	
	TOTAL	3.75	22.93	71.39	1.93	100.00	

Table Q-C6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Queens-Charlotte License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	33	88	123	147	111
		HW	4	10	13	13	12
	BFSP	SW	49	76	152	147	139
		HW	7	22	18	18	17
	PINE	SW	105	120	153	128	136
		HW	0	12	9	2	10
	PSSP	SW	34	40	78	60	71
		HW	1	2	3	0	2
	OTSW	SW	74	108	150	178	151
		HW	5	7	17	12	16
SH	SPTH	SW	41	85	104	110	100
		HW	25	46	43	74	43
	SPIH	SW	60	75	78	107	77
		HW	12	29	37	51	34
	BFTH	SW	72	77	108	112	102
		HW	24	46	38	58	39
	BFIH	SW	67	58	91	86	77
		HW	12	37	38	30	31
HS	THSP	SW	62	80	88	44	85
		HW	36	59	70	74	68
	IHSP	SW	43	46	55	73	52
		HW	29	56	52	105	53
	THBF	SW	73	45	61	55	59
		HW	39	50	70	73	56
	IHBF	SW	61	54	50	49	54
		HW	37	60	65	64	58
H	TOHW	SW	44	27	33	49	33
		HW	96	103	96	106	99
	THIH	SW	54	30	37	37	36
		HW	59	64	96	96	80
	INHW	SW	29	25	29	38	28
		HW	25	67	91	94	80
	IHTH	SW	6	35	29	28	30
		HW	35	63	97	94	80

Table Q-C7. Gross merchantable volume (m3) by species and development stage on the Queens-Charlotte License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	434064	4359129	15044629	343489	20181311	43.02
Balsam Fir	262200	793481	4250118	65517	5371316	11.45
Jack Pine	76492	677571	862957	1142	1618162	3.45
Red Pine	2888	229778	417140	0	649806	1.39
White Pine	31690	487543	980561	12826	1512620	3.22
Cedar	10811	305205	2971660	281036	3568712	7.61
Hemlock	25390	75293	417323	3476	521482	1.11
Larch	12330	121340	197660	1808	333138	.71
TOTAL SOFTWOOD	855865	7049340	25142048	709294	33756547	71.96
Red Maple	135401	1156008	3588989	67032	4947430	10.55
Sugar Maple	210680	399110	622662	16716	1249168	2.66
Yellow Birch	112398	330213	1061842	24718	1529171	3.26
Beech	343016	351482	356113	7473	1058084	2.26
Other Tolerant	2887	23849	28646	794	56176	.12
Total Tolerant	804382	2260662	5658252	116733	8840029	18.85
White Birch	36129	719427	1865538	41664	2662758	5.68
Poplar	44185	581372	649279	32098	1306934	2.79
Other Intolerant	17563	145085	174264	4826	341738	.73
Total Intolerant	97877	1445884	2689081	78588	4311430	9.19
TOTAL HARDWOOD	902259	3706546	8347333	195321	13151459	28.04
TOTAL ALL SPECIES	1758124	10755886	33489381	904615	46908006	100.00
PERCENT	3.75	22.93	71.39	1.93	100.00	

Figure Q-C4a. Total volume by species class and development.

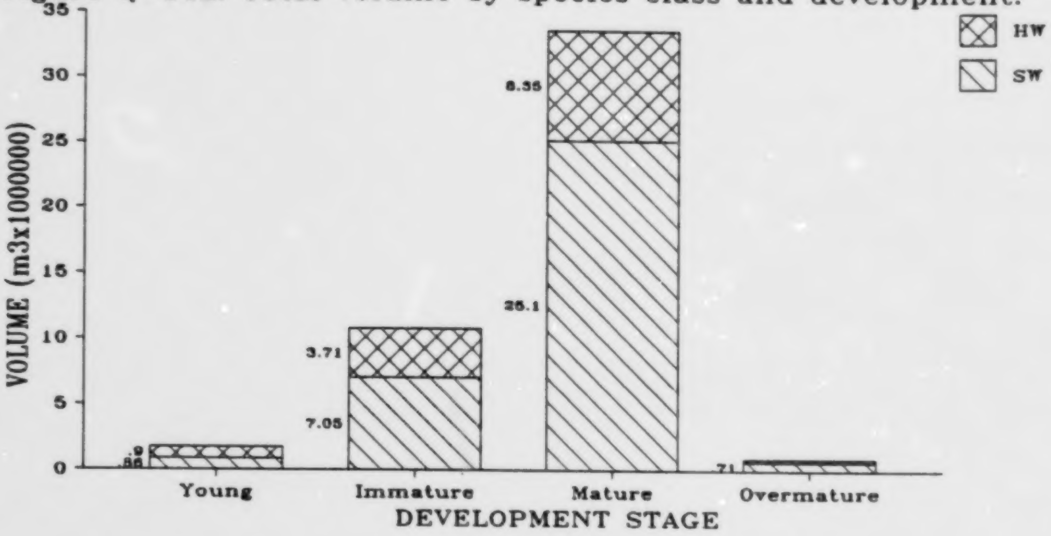


Figure Q-C4b. Volume per ha by species class and development.

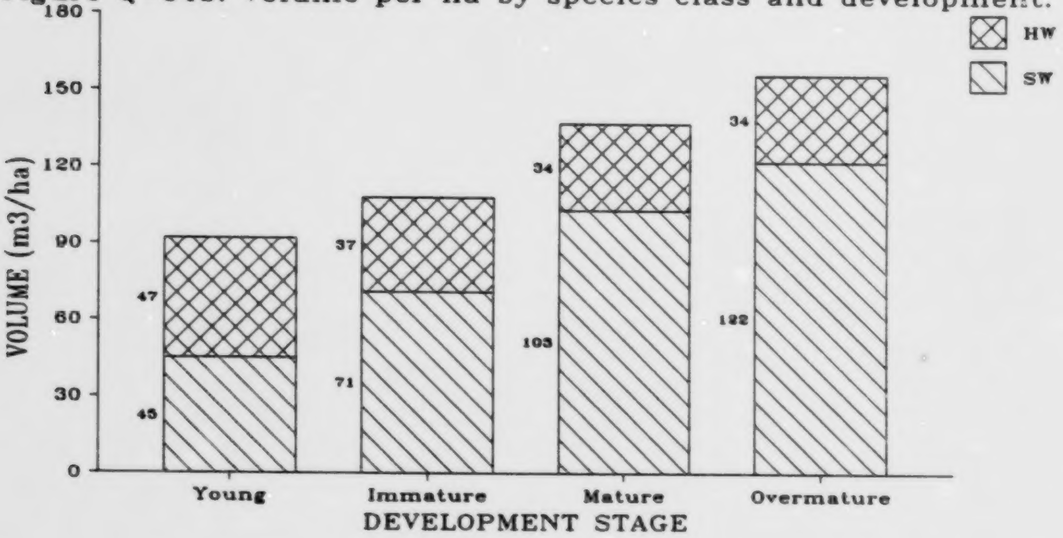


Figure Q-C4c. Total area (hax1000) by development stage.

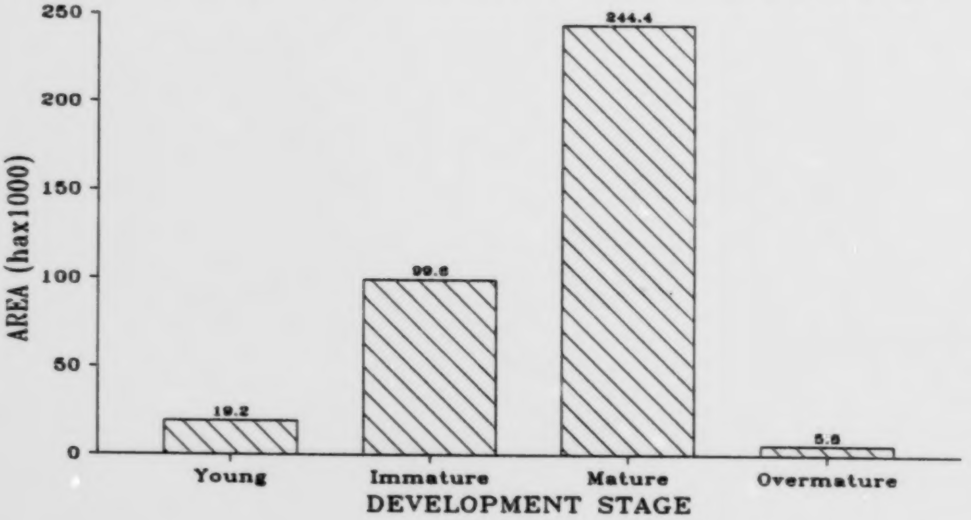


Table Q-C8. Gross merchantable volume (m3) by species and DBH class (cm) on the Queens-Charlotte License.

SPECIES	DBH CLASS 10-14	16-24	26+	TOTAL	PERCENT
Spruce	3431976	8981260	7768075	20181311	43.02
Balsam Fir	1213035	2891873	1266408	5371316	11.45
Jack Pine	288645	931537	397980	1618162	3.45
Red Pine	30943	144402	474462	649806	1.39
White Pine	25638	141007	1345975	1512620	3.22
Cedar	226912	1315060	2026740	3568712	7.61
Hemlock	10225	76689	434568	521482	1.11
Larch	54514	151426	127198	333138	.71
TOTAL SOFTWOOD	5281888	14633254	13841406	33756547	71.96
Red Maple	761498	2206037	1979895	4947430	10.55
Sugar Maple	127188	395191	726788	1249168	2.66
Yellow Birch	103443	332820	1092907	1529171	3.26
Beech	226422	404945	426717	1058084	2.26
Other Tolerant	6242	12484	37450	56176	.12
Total Tolerant	1224794	3351477	4263757	8840029	18.85
White Birch	392942	1331380	938436	2662758	5.68
Poplar	138695	389412	778827	1306934	2.79
Other Intolerant	149886	107917	83935	341738	.73
Total Intolerant	681522	1828709	1801198	4311430	9.19
TOTAL HARDWOOD	1906317	5180187	6064956	13151459	28.04
TOTAL ALL SPECIES	7188204	19813440	19906361	46908006	100.00
PERCENT	15.32	42.24	42.44	100.00	

Figure Q-C5. Volume by species class and DBH class.

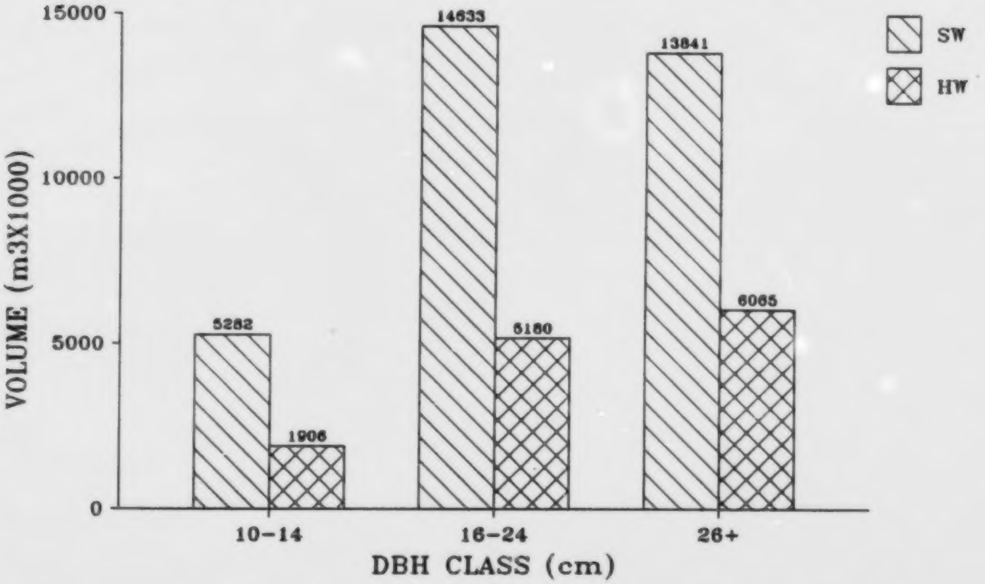
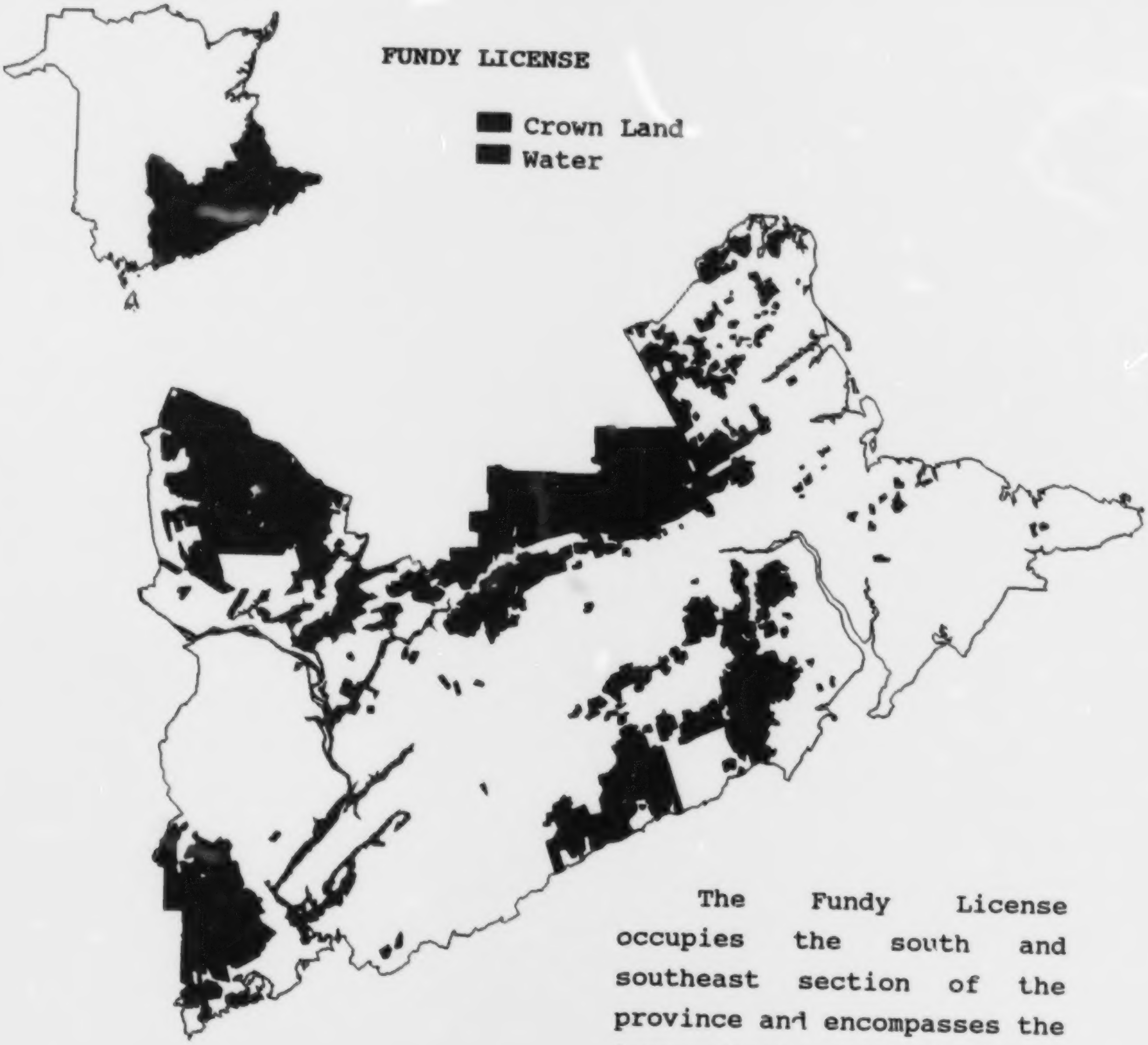


Table Q-C9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Queens-Charlotte License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	1.65	10	1.68	10	5.13	10	5.30
12	1.46	12	1.51	12	6.01	12	6.05
14	1.34	14	1.39	14	6.81	14	6.74
16	1.29	16	1.32	16	7.52	16	7.36
18	1.31	18	1.30	18	8.15	18	7.92
20	1.39	20	1.33	20	8.70	20	8.43
22	1.54	22	1.42	22	9.16	22	8.87
24	1.76	24	1.55	24	9.54	24	9.25
26	2.05	26	1.74	26	9.84	26	9.57
28	2.40	28	1.98	28	10.05	28	9.82
30	2.83	30	2.27	30	10.18	30	10.02
32	3.32	32	2.61	32	10.22	32	10.16
34	3.87	34	3.01	34	10.18	34	10.23
36	4.50	36	3.45	36	10.05	36	10.25
38	5.19	38	3.95	38	9.84	38	10.20
40	5.95	40	4.49	40	9.55	40	10.10
42	6.78	42	5.09	42	9.17	42	9.93
44	7.67	44	5.75	44	8.71	44	9.70
46	8.64	46	6.45	46	8.17	46	9.41
48	9.67	48	7.20	48	7.54	48	9.06
50	10.77	50	8.01	50	6.82	50	8.65

%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=3.5927531 C1=-.2790573 C2= .008450	%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=3.3240417 C1=-.2283473 C2= .0064403 R= .9063	%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=-.5435755 C1= .6721631 C2=-.010496	%CULL=C0+C1(SBD)+C2(SBD*SBD) C0= .6597383 C1= .5405969 C2=-.0076174 R= .8874

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	1.48	10-14	1.53	10-14	5.98	10-14	6.03
16-24	1.46	16-24	1.38	16-24	8.61	16-24	8.37
26+	5.66	26+	4.31	26+	9.26	26+	9.78
ALL	4.07	ALL	3.21	ALL	8.64	ALL	8.91



The Fundy License occupies the south and southeast section of the province and encompasses the lower stretches of the Saint John River and its many tributaries, Canaan, Salmon, Big Salmon, Wolfe and Petitcodiac River watersheds. Approximately 53 percent of the license is covered by a coniferous forest, predominantly of spruce, 24 percent is deciduous and 23 percent is covered by a mixed-wood forest. Approximately 44 percent of the productive forest land is in the mature development stage. Spruce makes up 43 percent of the total merchantable volume on the license. Other predominant species by merchantable species include red maple, white birch, poplar, balsam fir, sugar maple, jack pine, yellow birch, white pine, cedar and beech. Approximately 47 percent of the merchantable volume is in the 16-24 cm DBH size class, 33 percent is in the 26+ cm DBH range and 20 percent is in the 10-14 cm DBH class.

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Table FUN4. Area (ha) by cover type, forest unit and development stage on the Fundy License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE					TOTAL	PERCENT
		Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	17614	5643	44610	63546	2210	133623	43.05
	BFSP	4013	584	1256	643	202	6698	2.16
	PINE	1644	431	4320	4850	52	11297	3.64
	PSSP	119	212	1662	7971	280	10244	3.30
	OTSW	80	84	637	3136	80	4017	1.29
	TOTAL	23470	6954	52485	80146	2824	165879	53.44
SH	SPTH	286	221	6902	12180	179	19768	6.37
	SPIH	441	143	4597	6083	15	11279	3.63
	BFTH	426	133	950	512	20	2041	.66
	BFIH	625	174	521	180	3	1503	.48
	TOTAL	1778	671	12970	18955	217	34591	11.14
HS	THSP	284	251	6418	9193	42	16188	5.21
	IHSP	614	108	4741	8923	108	14494	4.67
	THBF	70	114	781	627	14	1606	.52
	IHBF	842	166	916	861	0	2785	.90
	TOTAL	1810	639	12856	19604	164	35073	11.30
H	TOHW	472	342	12396	12201	8	25419	8.19
	THIH	752	237	3308	4296	22	8615	2.78
	INHW	1806	303	8869	17091	673	28742	9.26
	INTH	1253	108	3105	7566	73	12105	3.90
	TOTAL	4283	990	27678	41154	776	74881	24.12
ALL COVER TYPES	TOTAL	31341	9254	105989	159859	3981	310424	100.00
ALL COVER TYPES	PERCENT	10.10	2.98	34.14	51.50	1.28	100.00	

Figure FUN3. Area by cover type and development stage.

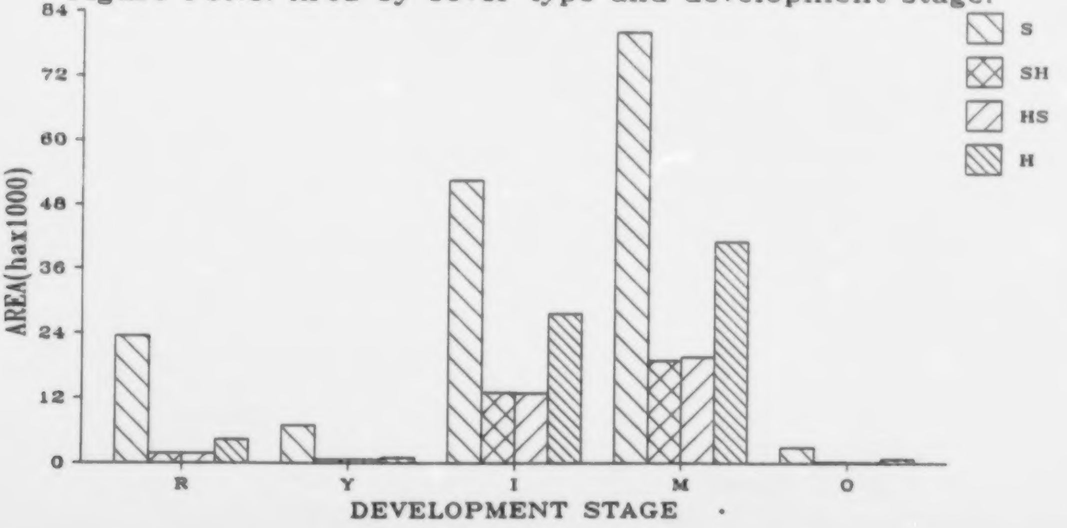

Table FUN5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Fundy License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	259563	4745255	7360438	326809	12692065	38.18
		HW	33854	570849	740459	35356	1380518	4.15
	BFSP	SW	28850	134729	91400	29721	284700	.86
		HW	3818	24746	11229	3637	43430	.13
	PINE	SW	45347	484084	790511	6461	1326403	3.99
		HW	0	46080	49651	118	95849	.29
	PSSP	SW	7342	91777	494568	16655	610342	1.84
		HW	261	7394	12524	0	20179	.06
	OTSW	SW	6174	69599	429299	14226	519298	1.56
		HW	414	8410	45313	972	55109	.17
SH	SPTH	SW	9026	574457	1127920	19757	1731160	5.21
		HW	5586	262266	638513	13291	919656	2.77
	SPIH	SW	8562	297558	474041	1601	781762	2.35
		HW	1769	159852	295618	759	457998	1.38
	BFTH	SW	9619	72796	48194	2231	132840	.40
		HW	3224	43295	21816	1160	69495	.21
	BFIH	SW	11714	23237	16427	270	51648	.16
		HW	2056	13330	6907	94	22387	.07
HS	THSP	SW	15577	363784	547698	1830	928889	2.79
		HW	9122	399083	631275	3116	1042596	3.14
	IHSP	SW	4629	222390	493934	8042	728995	2.19
		HW	3139	306003	685136	11493	1005771	3.03
	THBF	SW	8271	34825	38548	749	82393	.25
		HW	4478	39061	44089	991	88619	.27
	IHBF	SW	10163	39793	42980	0	92936	.28
		HW	6199	52751	56319	0	115269	.35
H	TOHW	SW	12181	286686	282246	392	581505	1.75
		HW	33099	1172811	1370162	859	2576931	7.75
	THIH	SW	10067	84903	125815	646	221431	.67
		HW	16827	229720	401995	2063	650605	1.96
	INHW	SW	8811	150778	328223	25867	513679	1.55
		HW	7681	804978	1354465	62924	2230048	6.71
	IHTH	SW	601	67273	113986	1091	182951	.55
		HW	3841	273496	724282	6944	1008563	3.03

Table FUN5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Fundy License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	347276	5525444	9166216	393872	15432808	46.42
	HW	38347	657479	859176	40083	1595085	4.80
	TOTAL	385623	6182923	10025392	433955	17027893	51.22
SH	SW	38921	968048	1666582	23859	2697410	8.11
	HW	12635	478743	962854	15304	1469536	4.42
	TOTAL	51556	1446791	2629436	39163	4166946	12.53
HS	SW	38640	660792	1123160	10621	1833213	5.51
	HW	22938	796898	1416819	15600	2252255	6.77
	TOTAL	61578	1457690	2539979	26221	4085468	12.29
H	SW	31660	589640	850270	27996	1499566	4.51
	HW	61448	2481005	3850904	72790	6466147	19.45
	TOTAL	93108	3070645	4701174	100786	7965713	23.96
ALL COVER TYPES	SW	456497	7743924	12806228	456348	21462997	64.56
	HW	135368	4414125	7089753	143777	11783023	35.44
	TOTAL	591865	12158049	19895981	600125	33246020	100.00
ALL COVER TYPES (%)	SW	1.37	23.29	38.52	1.37	64.56	
	HW	.41	13.28	21.33	.43	35.44	
	TOTAL	1.78	36.57	59.84	1.81	100.00	

Table FUN6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Fundy License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	46	106	116	148	109
		HW	6	13	12	16	12
	BFSP	SW	49	107	142	147	106
		HW	7	20	17	18	16
	PINE	SW	105	112	163	124	137
		HW	0	11	10	2	10
	PSSP	SW	35	55	62	59	60
		HW	1	4	2	0	2
	OTSW	SW	74	109	137	178	132
		HW	5	13	14	12	14
SH	SPTH	SW	41	83	93	110	89
		HW	25	38	52	74	47
	SPIH	SW	60	65	78	107	72
		HW	12	35	49	51	42
	BFTH	SW	72	77	94	112	82
		HW	24	46	43	58	43
	BFIH	SW	67	45	91	90	59
		HW	12	26	38	31	25
HS	THSP	SW	62	57	60	44	58
		HW	36	62	69	74	66
	IHSP	SW	43	47	55	74	53
		HW	29	65	77	106	72
	THBF	SW	73	45	61	54	54
		HW	39	50	70	71	58
	IHBF	SW	61	43	50	0	48
		HW	37	58	65	0	59
H	TOHW	SW	36	23	23	49	23
		HW	97	95	112	107	103
	THIH	SW	42	26	29	29	28
		HW	71	69	94	94	83
	INHW	SW	29	17	19	38	19
		HW	25	91	79	93	83
	INTH	SW	6	22	15	15	17
		HW	36	88	96	95	93

Table FUN7. Gross merchantable volume (m3) by species and development stage on the Fundy License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	302080	5639772	9645476	375810	15963138	48.02
Balsam Fir	84726	831584	1077011	31153	2024474	6.09
Jack Pine	42795	369940	723204	23719	1159658	3.49
Red Pine	3213	19303	49409	48	71973	.22
White Pine	9023	337091	463053	3212	812379	2.44
Cedar	5705	368068	536984	20260	931017	2.80
Hemlock	2780	25510	72521	908	101719	.31
Larch	6175	152656	238570	1238	398639	1.20
TOTAL SOFTWOOD	456497	7743924	12806228	456348	21462997	64.56
Red Maple	25178	1337736	2478054	41053	3882021	11.68
Sugar Maple	20711	486156	858910	8360	1374137	4.13
Yellow Birch	16098	551828	576621	19022	1163569	3.50
Beech	19559	217956	342956	4266	584737	1.76
Other Tolerant	326	23921	24746	565	49558	.15
Total Tolerant	81872	2617597	4281287	73266	7054022	21.22
White Birch	23484	875763	1492839	35816	2427902	7.30
Poplar	28513	810728	1201798	32096	2073135	6.24
Other Intolerant	1499	110037	113829	2599	227964	.69
Total Intolerant	53496	1796528	2808466	70511	4729001	14.22
TOTAL HARDWOOD	135368	4414125	7089753	143777	11783023	35.44
TOTAL ALL SPECIES	591865	12158049	19895981	600125	33246020	100.00
PERCENT	1.78	36.57	59.84	1.81	100.00	

Figure FUN4a. Total volume by species class and development.

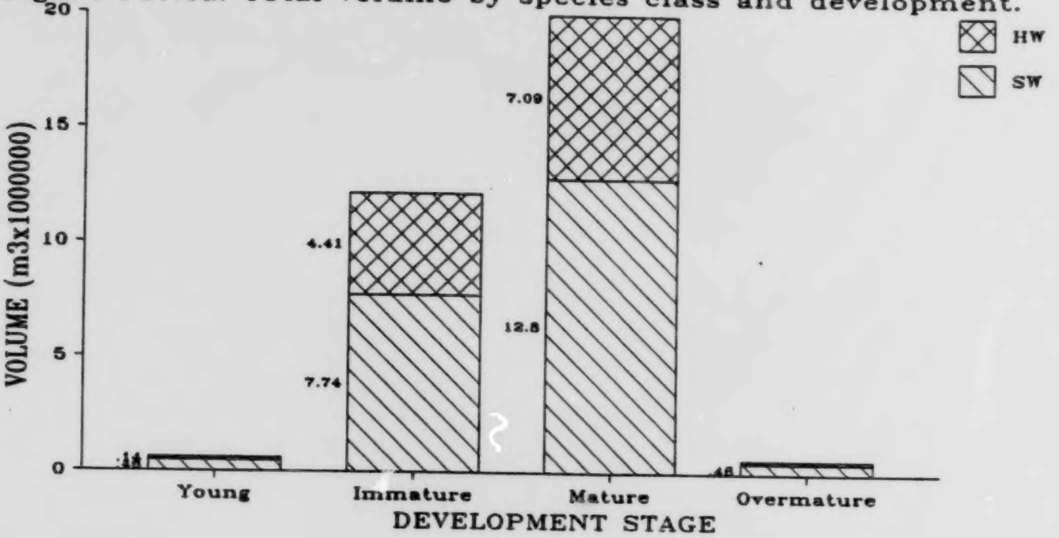

Figure FUN4b. Volume per ha by species class and development.

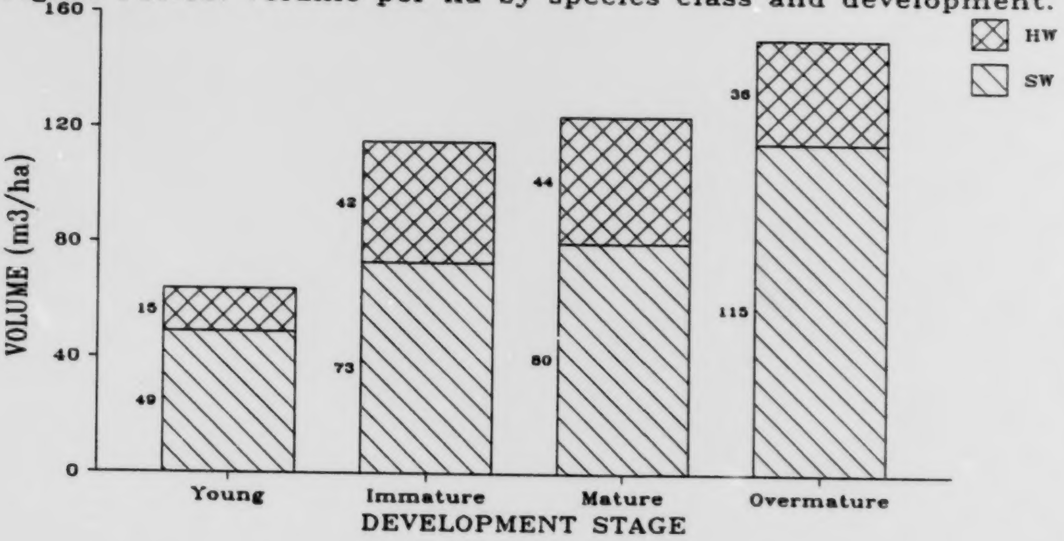

Figure FUN4c. Total area (hax1000) by development stage.

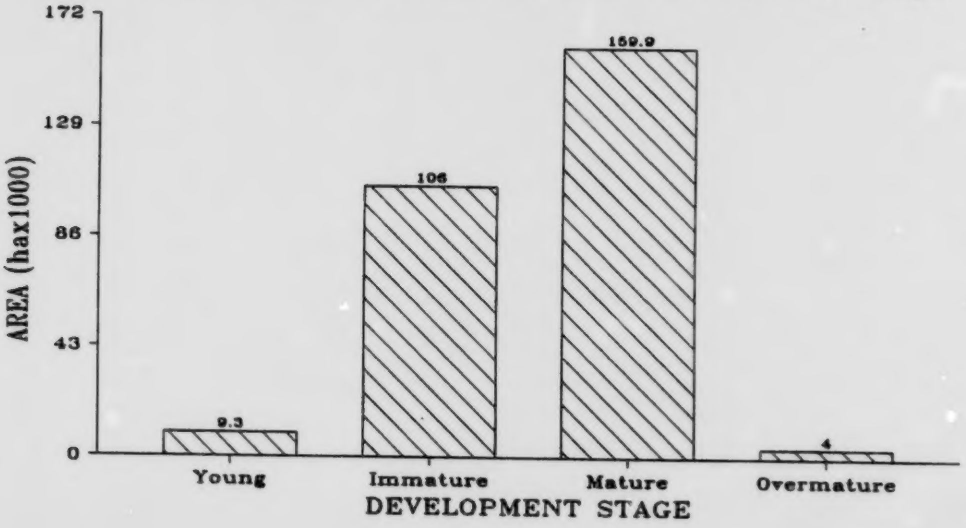

Table FUN8. Gross merchantable volume (m3) by species and DBH class (cm) on the Fundy License.

SPECIES		DBH CLASS		TOTAL	PERCENT
	10-14	16-24	26+		
Spruce	3458302	8173877	4330959	15963138	48.02
Balsam Fir	616885	1032687	374903	2024474	6.09
Jack Pine	134708	641326	383624	1159658	3.49
Red Pine	0	11364	60609	71973	.22
White Pine	38189	128453	645737	812379	2.44
Cedar	78237	391183	461597	931017	2.80
Hemlock	14530	43594	43594	101719	.31
Larch	73721	193859	131059	398639	1.20
TOTAL SOFTWOOD	4414572	10616343	6432082	21462997	64.56
Red Maple	836033	1767349	1278639	3882021	11.68
Sugar Maple	262240	433570	678327	1374137	4.13
Yellow Birch	93780	277868	791922	1163569	3.50
Beech	188744	273864	122129	584737	1.76
Other Tolerant	3812	19061	26685	49558	.15
Total Tolerant	1384608	2771712	2897701	7054022	21.22
White Birch	574140	1287126	566636	2427902	7.30
Poplar	211607	775893	1085635	2073135	6.24
Other Intolerant	169008	51096	7860	227964	.69
Total Intolerant	954755	2114114	1660132	4729001	14.22
TOTAL HARDWOOD	2339364	4885826	4557833	11783023	35.44
TOTAL ALL SPECIES	6753936	15502169	10989915	33246020	100.00
PERCENT	20.32	46.63	33.06	100.00	

Figure FUN5. Volume by species class and DBH class.

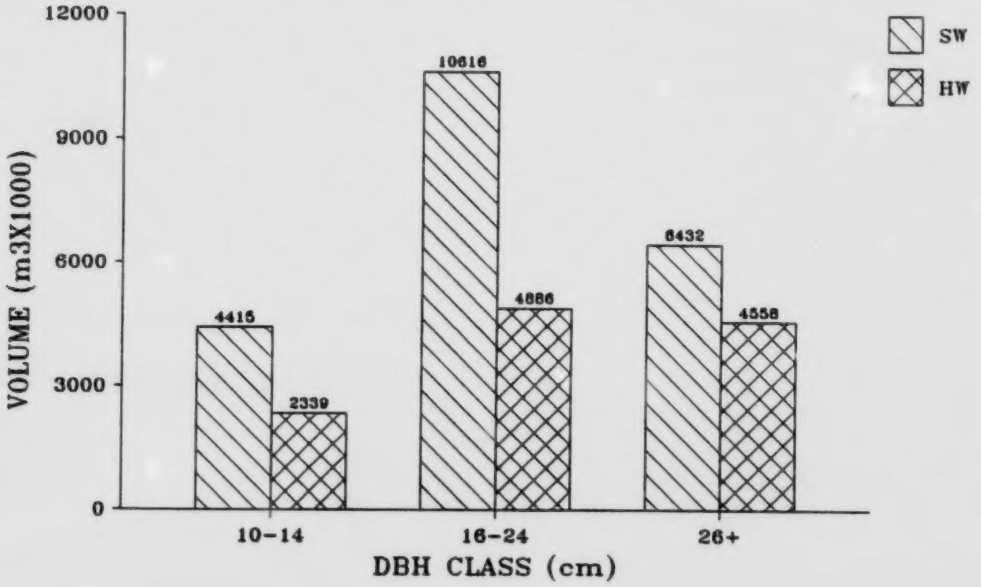

Table FUN9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Fundy License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	2.31	10	2.40	10	4.61	10	4.90
12	1.90	12	2.02	12	5.93	12	5.99
14	1.56	14	1.70	14	7.09	14	6.98
16	1.29	16	1.44	16	8.10	16	7.86
18	1.10	18	1.23	18	8.96	18	8.63
20	.98	20	1.08	20	9.67	20	9.30
22	.93	22	.98	22	10.24	22	9.86
24	.96	24	.94	24	10.65	24	10.31
26	1.07	26	.96	26	10.91	26	10.65
28	1.24	28	1.04	28	11.02	28	10.89
30	1.49	30	1.17	30	10.99	30	11.02
32	1.82	32	1.36	32	10.80	32	11.04
34	2.22	34	1.60	34	10.46	34	10.96
36	2.69	36	1.91	36	9.98	36	10.76
38	3.24	38	2.27	38	9.34	38	10.47
40	3.86	40	2.68	40	8.55	40	10.06
42	4.55	42	3.16	42	7.61	42	9.55
44	5.32	44	3.69	44	6.53	44	8.93
46	6.17	46	4.27	46	5.29	46	8.20
48	7.08	48	4.92	48	3.90	48	7.36
50	8.08	50	5.62	50	2.37	50	6.42

%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)	%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)
C0=5.4970354	C0=5.1532089	C0=-4.1962954	C0=-2.1863763
C1=-.4110086	C1=-.3460093	C1= 1.0683582	C1= .8421374
C2= .009251	C2= .0071060	C2= -.018742	C2= -.133998
	R= .7632		R= .7765

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	1.92	10-14	2.04	10-14	5.88	10-14	5.96
16-24	1.05	16-24	1.13	16-24	9.52	16-24	9.19
26+	3.76	26+	2.67	26+	8.29	26+	9.72
ALL	2.85	ALL	2.21	ALL	8.24	ALL	9.05

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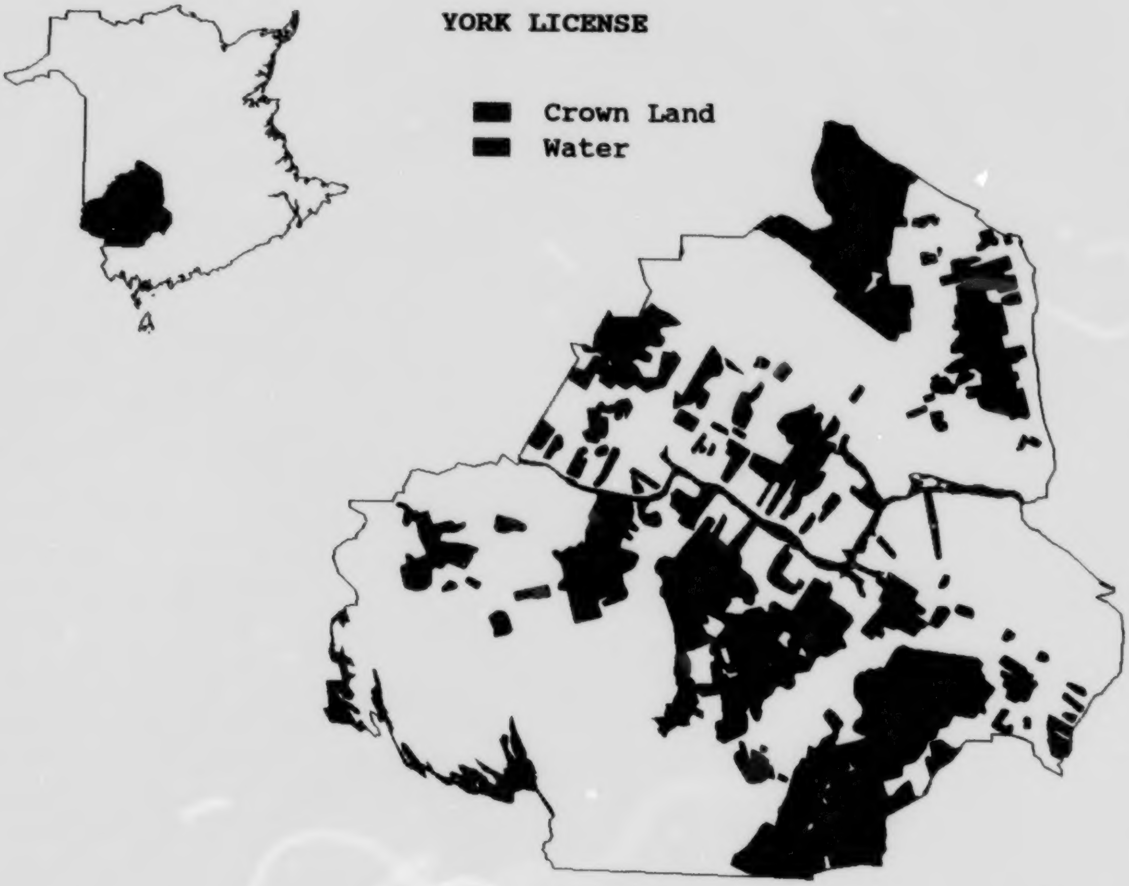

The York License is located in the central western part of the province and encompasses the middle stretch of the Saint John River and its many tributaries, notably the Keswick, Tay, Nashwaak and Pokiok River watersheds. The area is dotted with many lakes and traversed by many streams. Approximately 36 percent of the license is covered by a coniferous forest, 28 percent is deciduous and 36 percent is covered by a mixed-wood forest. Approximately 76 percent of the productive forest land is evenly distributed in the immature-old and mature development stages. Spruce makes up 30 percent of the total merchantable volume on the license. Other predominant species by merchantable volume include balsam fir, red maple, cedar, sugar maple, white birch, beech, hemlock, yellow birch, white pine and larch. Approximately 43 percent of the merchantable volume is in the 26+ cm DBH size class, 42 percent is in the 16-24 cm DBH range and 15 percent is in the 10-14 cm DBH class.

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Table YORK4. Area (ha) by cover type, forest unit and development stage on the York License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	674	6	8993	17479	429	27581	24.38
	BFSP	524	0	771	730	100	2125	1.88
	PINE	1	0	393	296	29	719	.64
	PSSP	0	0	35	856	35	926	.82
	OTSW	31	0	820	8451	95	9397	8.31
	TOTAL	1230	6	11012	27812	688	40748	36.02
SH	SPTH	47	0	5194	10090	235	15566	13.76
	SPIH	43	0	2035	1739	0	3817	3.37
	BFTH	93	0	505	748	0	1346	1.19
	BFIH	58	8	107	138	2	313	.28
	TOTAL	241	8	7841	12715	237	21042	18.60
HS	THSP	172	1	6912	5542	130	12757	11.28
	IHSP	127	0	4069	2374	2	6572	5.81
	THBF	22	0	148	241	0	411	.36
	IHBF	48	4	269	118	0	439	.39
	TOTAL	369	5	11398	8275	132	20179	17.84
H	TOHW	894	576	13001	2350	16	16837	14.88
	THIH	657	11	2730	1306	0	4704	4.16
	INHW	1900	32	1830	1531	50	5343	4.72
	INTH	1192	0	1508	1561	0	4261	3.77
	TOTAL	4643	619	19069	6748	66	31145	27.53
ALL COVER TYPES	TOTAL	6483	638	49320	55550	1123	113114	100.00
ALL COVER TYPES	PERCENT	5.73	.56	43.60	49.11	.99	100.00	

Figure YORK3. Area by cover type and development stage.

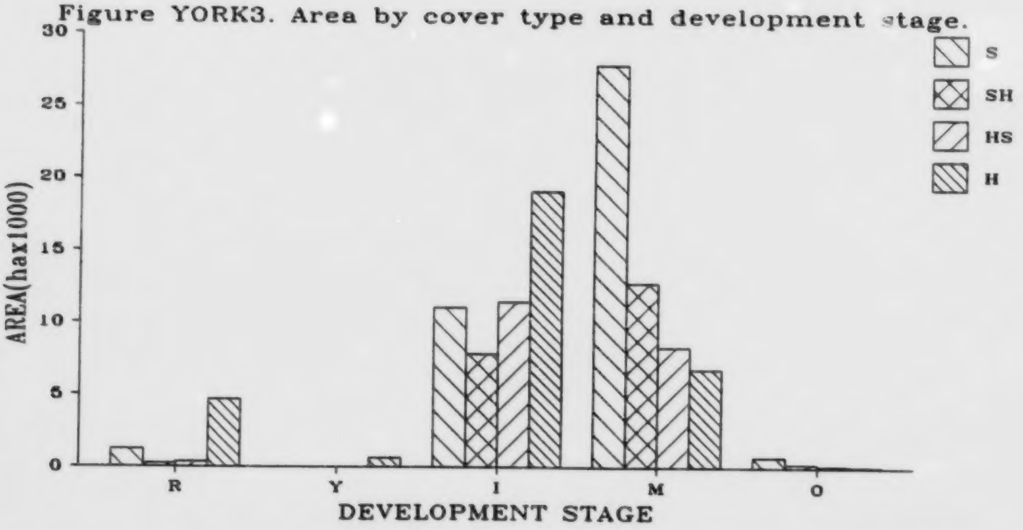


Table YORK5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the York License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	265	1284363	2521554	69402	3875584	25.34
		HW	29	176324	372997	17755	567105	3.71
	BFSP	SW	16	79557	106682	14663	200918	1.31
		HW	2	13626	9175	1794	24597	.16
	PINE	SW	0	91915	45677	3579	141171	.92
		HW	0	5377	2876	65	8318	.05
	PSSP	SW	0	1931	50176	2086	54193	.35
		HW	0	155	3810	0	3965	.03
	OTSW	SW	0	105204	1126747	16886	1248837	8.17
		HW	0	7964	126870	1154	135988	.89
SH	SPTH	SW	0	481465	1165406	25988	1672859	10.94
		HW	0	253879	526845	17483	798207	5.22
	SPIH	SW	0	168125	155668	0	323793	2.12
		HW	0	97801	72083	0	169884	1.11
	BFTH	SW	0	41276	57568	0	98844	.65
		HW	0	29667	34857	0	64524	.42
	BFIH	SW	508	5574	12591	200	18873	.12
		HW	90	3790	5295	70	9245	.06
HS	THSP	SW	87	442356	403193	5659	851295	5.57
		HW	50	519132	389083	9633	917898	6.00
	IHSP	SW	0	236957	148829	170	385956	2.52
		HW	0	281182	160935	241	442358	2.89
	THBF	SW	0	6584	14800	0	21384	.14
		HW	0	7386	16928	0	24314	.16
	IHBF	SW	225	14950	5887	0	21062	.14
		HW	136	15862	7713	0	23711	.16
H	TOHW	SW	20514	311748	78727	795	411784	2.69
		HW	55742	1263003	210013	1743	1530501	10.01
	THIH	SW	450	89066	66872	0	156388	1.02
		HW	754	217154	105167	0	323075	2.11
	IHHW	SW	934	39868	35344	1927	78073	.51
		HW	815	133810	169590	4686	308901	2.02
	IHTH	SW	0	26181	48076	0	74257	.49
		HW	0	142338	164051	0	306389	2.00

Table YORK5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the York License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	281	1562970	3850836	106616	5520703	36.10
	HW	31	203446	515728	20768	739973	4.84
	TOTAL	312	1766416	4366564	127384	6260676	40.93
SH	SW	508	696440	1391233	26188	2114369	13.82
	HW	90	385137	639080	17553	1041860	6.81
	TOTAL	598	1081577	2030313	43741	3156229	20.64
HS	SW	312	700847	572709	5829	1279697	8.37
	HW	186	823562	574659	9874	1408281	9.21
	TOTAL	498	1524409	1147368	15703	2687978	17.58
H	SW	21898	466863	229019	2722	720502	4.71
	HW	57311	1756305	648821	6429	2468866	16.14
	TOTAL	79209	2223168	877840	9151	3189368	20.85
ALL COVER TYPES	SW	22999	3427120	6043797	141355	9635271	63.00
	HW	57618	3168450	2378288	54624	5658980	37.00
	TOTAL	80617	6595570	8422085	195979	15294251	100.00
ALL COVER TYPES (%)	SW	.15	22.41	39.52	.92	63.00	
	HW	.38	20.72	15.55	.36	37.00	
	TOTAL	.53	43.12	55.07	1.28	100.00	

Table YORK6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the York License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	44	143	144	162	144
		HW	5	20	21	41	21
	BFSP	SW	0	103	146	147	125
		HW	0	18	13	18	15
	PINE	SW	0	234	154	123	197
		HW	0	14	10	2	12
	PSSP	SW	0	55	59	60	59
		HW	0	4	4	0	4
	OTSW	SW	0	128	133	178	133
		HW	0	10	15	12	15
SH	SPTH	SW	0	93	116	111	108
		HW	0	49	52	74	51
	SPIH	SW	0	83	90	0	86
		HW	0	48	41	0	45
	BFTH	SW	0	82	77	0	79
		HW	0	59	47	0	51
	BFIH	SW	64	52	91	100	74
		HW	11	35	38	35	36
HS	THSP	SW	87	64	73	44	68
		HW	50	75	70	74	73
	IHSP	SW	0	58	63	85	60
		HW	0	69	68	121	69
	THBF	SW	0	44	61	0	55
		HW	0	50	70	0	63
	IHBF	SW	56	56	50	0	54
		HW	34	59	65	0	61
H	TOHW	SW	36	24	34	50	26
		HW	97	97	89	109	96
	THIH	SW	41	33	51	0	39
		HW	69	80	81	0	80
	INHW	SW	29	22	23	39	23
		HW	25	73	111	94	90
	INTH	SW	0	17	31	0	24
		HW	0	94	105	0	100

Table YORK7. Gross merchantable volume (m3) by species and development stage on the York License.

SPECIES	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
Spruce	12774	1609791	2895372	76045	4593982	30.04
Balsam Fir	8377	954243	1263884	31703	2258207	14.77
Jack Pine	108	22	17764	517	18411	.12
Red Pine	1	104684	22836	0	127521	.83
White Pine	201	146727	196552	3714	347194	2.27
Cedar	270	313641	1234281	27735	1575927	10.30
Hemlock	1249	210877	317695	1459	531280	3.47
Larch	19	87135	95413	182	182749	1.19
TOTAL SOFTWOOD	22999	3427120	6043797	141355	9635271	63.00
Red Maple	6235	933067	1039996	18041	1997339	13.06
Sugar Maple	19894	507420	206198	10401	743913	4.86
Yellow Birch	8161	203453	200436	12235	424285	2.77
Beech	20077	468540	113900	2834	605351	3.96
Other Tolerant	114	14145	5234	286	19780	.13
Total Tolerant	54481	2126625	1565764	43797	3790668	24.78
White Birch	1140	277437	337425	5954	621956	4.07
Poplar	1021	643604	430409	2425	1077459	7.04
Other Intolerant	976	120784	44690	2448	168897	1.10
Total Intolerant	3137	1041825	812524	10827	1868312	12.22
TOTAL HARDWOOD	57618	3168450	2378288	54624	5658980	37.00
TOTAL ALL SPECIES	80617	6595570	8422085	195979	15294251	100.00
PERCENT	.53	43.12	55.07	1.28	100.00	

Figure YORK4a. Total volume by species class and development.

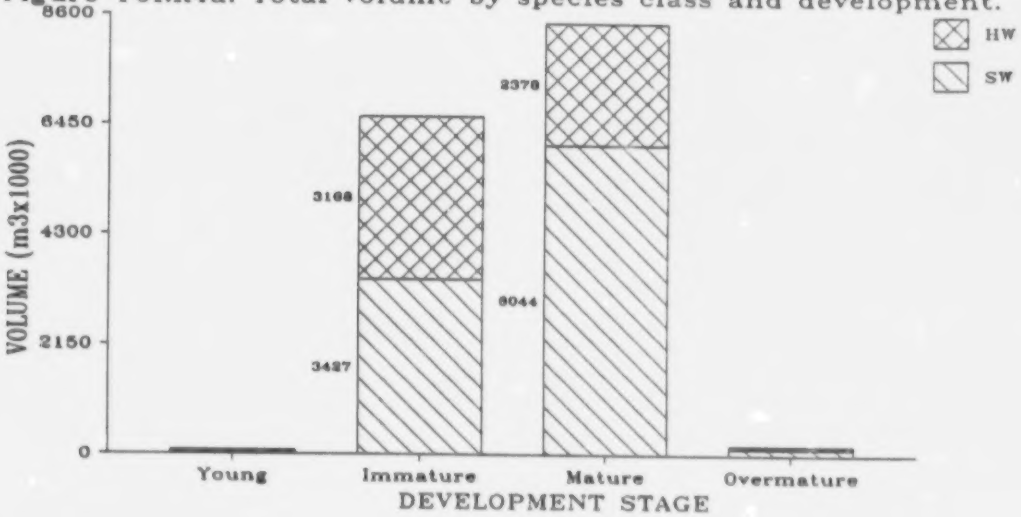


Fig. YORK4b. Volume per ha by species class and development.

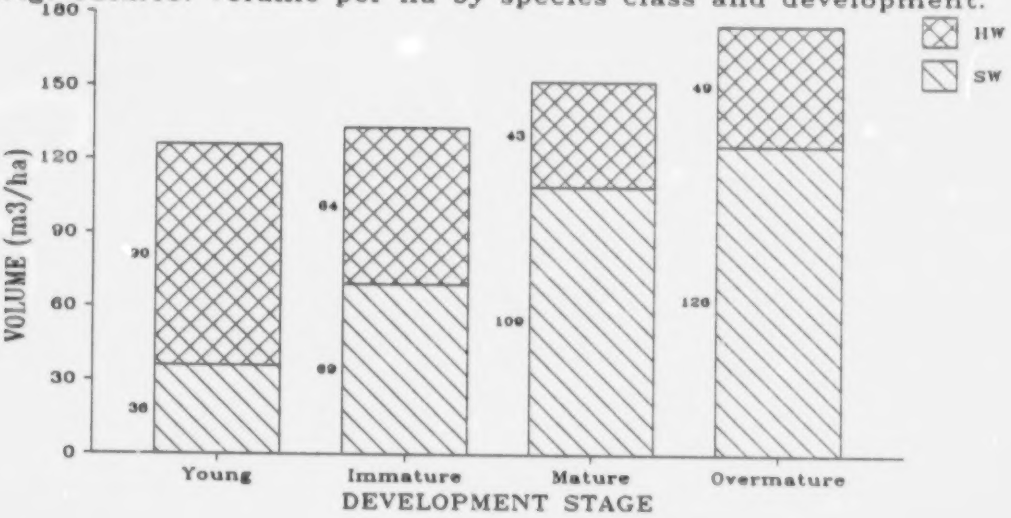


Figure YORK4c. Total area (hax1000) by development stage.

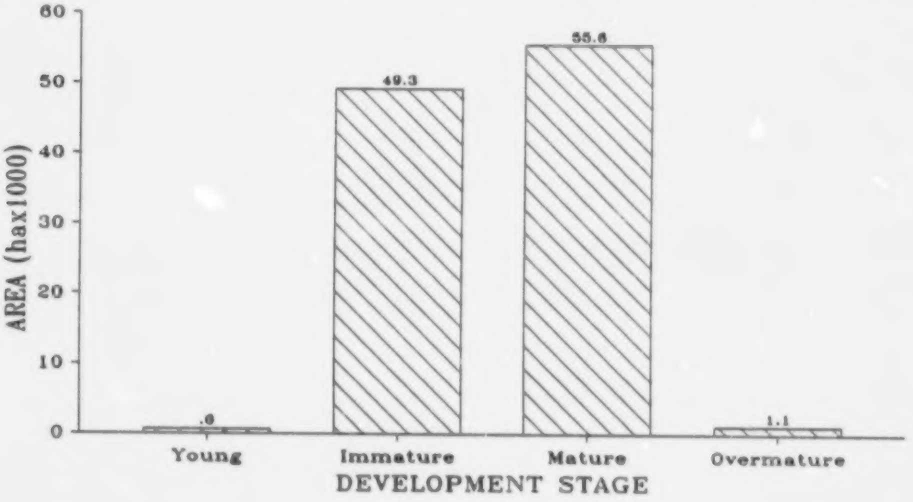


Table YORK8. Gross merchantable volume (m3) by species and DBH class (cm) on the York License.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	587339	2001804	2004839	4593982	30.04
Balsam Fir	587851	1200793	469563	2258207	14.77
Jack Pine	18411	0	0	18411	.12
Red Pine	3806	36163	87552	127521	.83
White Pine	6917	35964	304313	347194	2.27
Cedar	220661	762141	593125	1575927	10.30
Hemlock	31877	153312	346091	531280	3.47
Larch	26328	75887	80534	182749	1.19
TOTAL SOFTWOOD	1483190	4266063	3886018	9635271	63.00
Red Maple	276731	876076	844532	1997339	13.06
Sugar Maple	102464	232999	408450	743913	4.86
Yellow Birch	39539	106451	278295	424285	2.77
Beech	166031	238026	201294	605351	3.96
Other Tolerant	5651	9891	4238	19780	.13
Total Tolerant	590416	1463444	1736809	3790668	24.78
White Birch	73344	288975	259637	621956	4.07
Poplar	83323	320364	673771	1077459	7.04
Other Intolerant	46997	45528	76371	168897	1.10
Total Intolerant	203665	654867	1009780	1868312	12.22
TOTAL HARDWOOD	794081	2118311	2746588	5658980	37.00
TOTAL ALL SPECIES	2277270	6384374	6632607	15294251	100.00
PERCENT	14.89	41.74	43.37	100.00	

Figure YORK5. Volume by species class and DBH class.

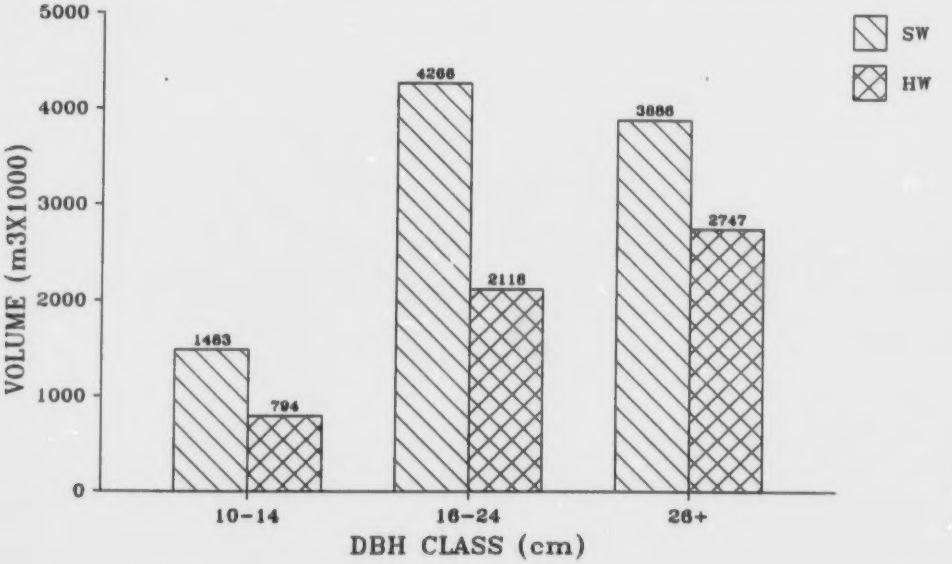
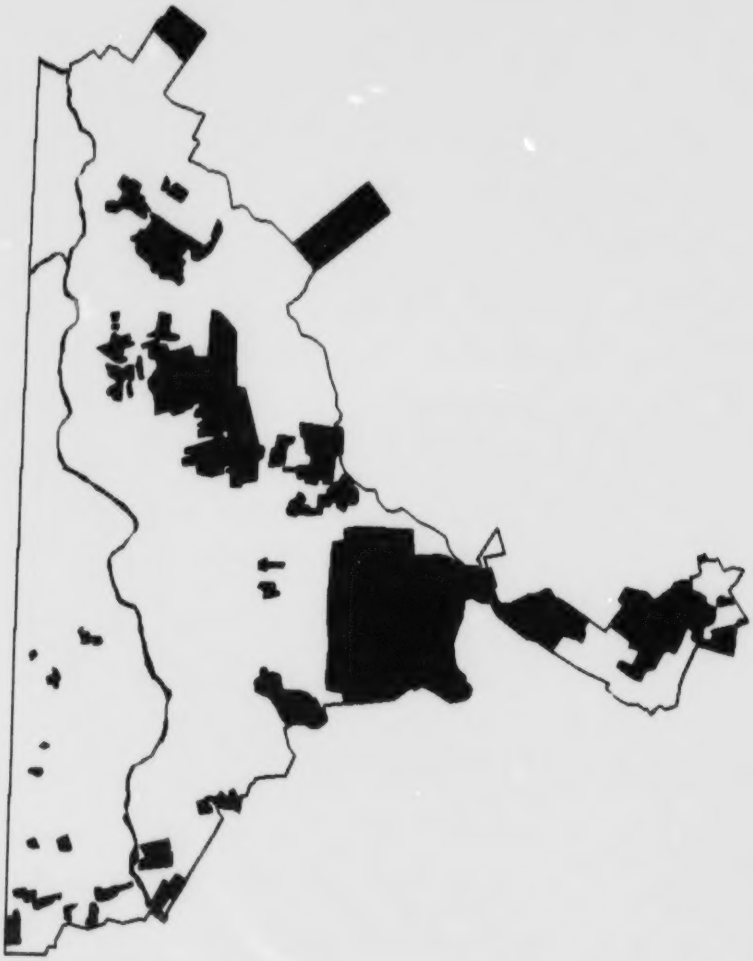


Table YORK9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - York License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	2.67	10	2.80	10	7.30	10	7.18
12	2.00	12	2.19	12	6.97	12	6.93
14	1.50	14	1.71	14	6.72	14	6.75
16	1.18	16	1.35	16	6.57	16	6.62
18	1.02	18	1.13	18	6.50	18	6.55
20	1.04	20	1.04	20	6.52	20	6.54
22	1.23	22	1.08	22	6.63	22	6.60
24	1.58	24	1.25	24	6.82	24	6.71
26	2.11	26	1.55	26	7.11	26	6.88
28	2.81	28	1.98	28	7.48	28	7.12
30	3.69	30	2.54	30	7.94	30	7.41
32	4.73	32	3.24	32	8.49	32	7.77
34	5.94	34	4.06	34	9.12	34	8.18
36	7.33	36	5.02	36	9.85	36	8.66
38	8.88	38	6.10	38	10.66	38	9.19
40	10.61	40	7.32	40	11.56	40	9.79
42	12.51	42	8.66	42	12.55	42	10.45
44	14.58	44	10.14	44	13.62	44	11.16
46	16.82	46	11.75	46	14.79	46	11.94
48	19.23	48	13.49	48	16.04	48	12.78
50	21.81	50	15.36	50	17.38	50	13.67
%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=8.5719800 C1=-.8044411 C2= .021385		%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=7.8347895 C1=-.6665966 C2= .0163410 R= .8884		%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=10.2776264 C1= .4079792 C2= .010999		%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=9.3294281 C1=-.2900329 C2= .0075384 R= .9398	
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	2.06	10-14	2.23	10-14	7.00	10-14	6.95
16-24	1.21	16-24	1.17	16-24	6.61	16-24	6.60
26+	10.08	26+	7.02	26+	11.28	26+	9.62
ALL	6.82	ALL	4.94	ALL	9.55	ALL	8.52

CARLETON LICENSE



The Carleton License is located in the western part of the province and encompasses the upper Saint John River watershed and its many tributaries including the lower section of the Tobique River watershed. Approximately 43 percent of the license is covered by a deciduous forest, 33 percent is coniferous and 24 percent is covered by a mixed-wood forest. Approximately 49 percent of the productive forest land is in the mature development stage. Spruce and balsam fir make up 48 percent of the total merchantable volume on the license. Other predominant species include sugar maple, red maple, yellow birch, cedar, beech, poplar, and white birch. Approximately 48 percent of the merchantable volume is in the 26+ cm DBH size class, 39 percent is in the 16-24 cm DBH range and 13 percent is in the 10-14 cm DBH class.

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Table CAR4. Area (ha) by cover type, forest unit and development stage on the Carleton License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	192	46	3227	18446	363	22274	21.02
	BFSP	78	114	652	6527	342	7713	7.28
	PINE	0	0	25	21	0	46	.04
	PSSP	0	0	64	767	81	912	.86
	OTSW	18	18	518	3511	88	4153	3.92
	TOTAL	288	178	4486	29272	874	35098	33.13
SH	SPTH	33	10	1013	5841	154	7051	6.66
	SPIH	6	6	277	494	23	806	.76
	BFTH	86	69	271	2378	36	2840	2.68
	BFIH	53	9	83	386	111	642	.61
	TOTAL	178	94	1644	9099	324	11339	10.70
HS	THSP	85	7	1677	6301	68	8138	7.68
	IHSP	108	14	482	811	9	1424	1.34
	THBF	67	140	548	2200	28	2983	2.82
	IHBF	394	37	191	338	0	960	.91
	TOTAL	654	198	2898	9650	105	13505	12.75
H	TOHW	1540	6119	17111	13512	86	38368	36.21
	THIH	641	920	1201	320	0	3082	2.91
	INHW	1225	118	572	812	0	2727	2.57
	IHTH	697	249	356	527	0	1829	1.73
	TOTAL	4103	7406	19240	15171	86	46006	43.42
ALL COVER TYPES	TOTAL	5223	7876	28268	63192	1389	105948	100.00
ALL COVER TYPES	PERCENT	4.93	7.43	26.68	59.64	1.31	100.00	

Figure CAR3. Area by cover type and development stage.

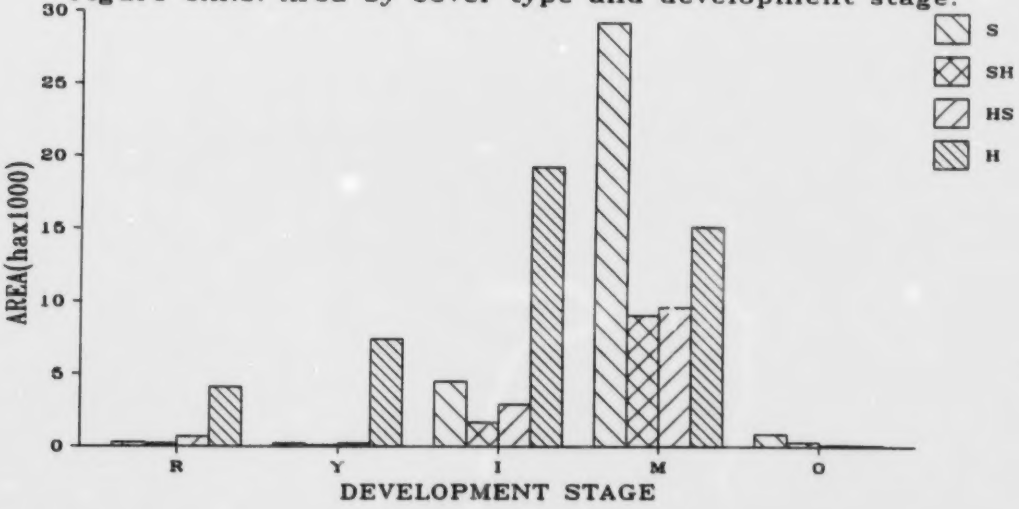


Table CAR5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Carleton License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	2185	506458	3207660	53036	3769339	25.17
		HW	232	48240	253668	6207	308347	2.06
	BFSP	SW	5635	90953	861629	50288	1008505	6.74
		HW	746	17238	110034	6155	134173	.90
	PINE	SW	0	3059	3280	0	6339	.04
		HW	0	287	206	0	493	.00
	PSSP	SW	0	3533	61913	4836	70282	.47
		HW	0	285	2773	0	3058	.02
	OTSW	SW	1357	31517	502319	15600	550793	3.68
		HW	92	8396	32121	1066	41675	.28
SH	SPTH	SW	418	96550	685181	17058	799207	5.34
		HW	259	47187	340724	11476	399646	2.67
	SPIH	SW	339	27434	39484	2499	69756	.47
		HW	70	13771	21162	1185	36188	.24
	BFTH	SW	5026	20772	199913	3929	229640	1.53
		HW	1683	12354	98468	2042	114547	.77
	BFIH	SW	589	7460	35272	9561	52882	.35
		HW	105	4109	14833	3362	22409	.15
HS	THSP	SW	412	112421	557843	2974	673650	4.50
		HW	240	102733	594433	5064	702470	4.69
	IHSP	SW	607	31781	47435	689	80512	.54
		HW	413	29184	53652	984	84233	.56
	THBF	SW	10216	24420	122721	1518	158875	1.06
		HW	5530	27391	170801	2008	205730	1.37
	IHBF	SW	2244	10610	16842	0	29696	.20
		HW	1369	11256	22070	0	34695	.23
H	TOHW	SW	168751	353837	450279	4202	977069	6.53
		HW	632412	1792436	1394415	9211	3828474	25.57
	THIH	SW	27584	38215	11393	0	77192	.52
		HW	82756	102966	29722	0	215444	1.44
	INHW	SW	3433	23000	39703	0	66136	.44
		HW	2992	36732	73503	0	113227	.76
	IHTH	SW	1383	7723	12759	0	21865	.15
		HW	8842	27292	50652	0	86786	.58

Table CAR5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Carleton License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
S	SW	9177	635520	4636801	123760	5405258	36.10
	HW	1070	74446	398802	13428	487746	3.26
	TOTAL	10247	709966	5035603	137188	5893004	39.36
SH	SW	6372	152216	959850	33047	1151485	7.69
	HW	2117	77421	475187	18065	572790	3.83
	TOTAL	8489	229637	1435037	51112	1724275	11.52
HS	SW	13479	179232	744841	5181	942733	6.30
	HW	7552	170564	840956	8056	1027128	6.86
	TOTAL	21031	349796	1585797	13237	1969861	13.16
H	SW	201151	422775	514134	4202	1142262	7.63
	HW	727002	1959426	1548292	9211	4243931	28.34
	TOTAL	928153	2382201	2062426	13413	5386193	35.97
ALL COVER TYPES	SW	230179	1389743	6855626	166190	8641738	57.71
	HW	737741	2281857	3263237	48760	6331595	42.29
	TOTAL	967920	3671600	10118863	214950	14973333	100.00
ALL COVER TYPES (%)	SW	1.54	9.28	45.79	1.11	57.71	
	HW	4.93	15.24	21.79	.33	42.29	
	TOTAL	6.46	24.52	67.58	1.44	100.00	

Table CAR6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Carleton License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	48	157	174	146	171
		HW	5	15	14	17	14
	BFSP	SW	49	139	132	147	132
		HW	7	26	17	18	18
	PINE	SW	0	122	156	0	138
		HW	0	11	10	0	11
	PSSP	SW	0	55	81	60	77
		HW	0	4	4	0	3
	OTSW	SW	75	61	143	177	133
		HW	5	16	9	12	10
SH	SPTH	SW	42	95	117	111	114
		HW	26	47	58	75	57
	SPIH	SW	57	99	80	109	87
		HW	12	50	43	52	45
	BFTH	SW	73	77	84	109	83
		HW	24	46	41	57	42
	BFIH	SW	65	90	91	86	90
		HW	12	50	38	30	38
HS	THSP	SW	59	67	89	44	84
		HW	34	61	94	74	87
	IHSP	SW	43	66	58	77	61
		HW	30	61	66	109	64
	THBF	SW	73	45	56	54	54
		HW	40	50	78	72	71
	IHBF	SW	61	56	50	0	52
		HW	37	59	65	0	61
H	TOHW	SW	28	21	33	49	27
		HW	103	105	103	107	104
	THIH	SW	30	32	36	0	32
		HW	90	86	93	0	88
	INHW	SW	29	40	49	0	44
		HW	25	64	91	0	75
	INTH	SW	6	22	24	0	19
		HW	36	77	96	0	77

Table CAR7. Gross merchantable volume (m3) by species and development stage on the Carleton License.

SPECIES	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
Spruce	92666	701802	3770913	84375	4649756	31.05
Balsam Fir	118756	483831	1928142	49752	2580481	17.23
Jack Pine	734	1401	4747	1796	8678	.06
Red Pine	5	1614	6372	0	7991	.05
White Pine	1556	20780	70913	2282	95531	.64
Cedar	4996	121055	952801	26703	1105555	7.38
Hemlock	10574	39008	44978	874	95434	.64
Larch	892	20252	76760	408	98312	.66
TOTAL SOFTWOOD	230179	1389743	6855626	166190	8641738	57.71
Red Maple	58129	457979	957526	9635	1483269	9.91
Sugar Maple	323175	722279	798615	12114	1856183	12.40
Yellow Birch	117770	296741	719276	13222	1147009	7.66
Beech	199828	455052	229648	3402	887930	5.93
Other Tolerant	924	5069	4381	239	10613	.07
Total Tolerant	699826	1937120	2709446	38612	5385004	35.96
White Birch	18487	109292	267422	6503	401704	2.68
Poplar	12564	197790	253820	1872	466046	3.11
Other Intolerant	6864	37655	32549	1773	78841	.53
Total Intolerant	37915	344737	553791	10148	946591	6.32
TOTAL HARDWOOD	737741	2281857	3263237	48760	6331595	42.29
TOTAL ALL SPECIES	967920	3671600	10118863	214950	14973333	100.00
PERCENT	6.46	24.52	67.58	1.44	100.00	

Figure CAR4a. Total volume by species class and development.

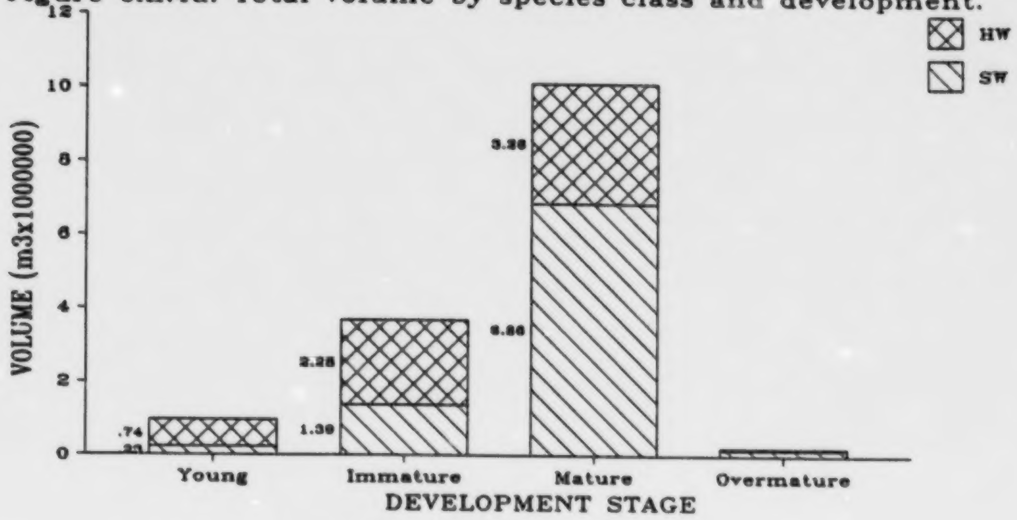


Figure CAR4b. Volume per ha by species class and development.

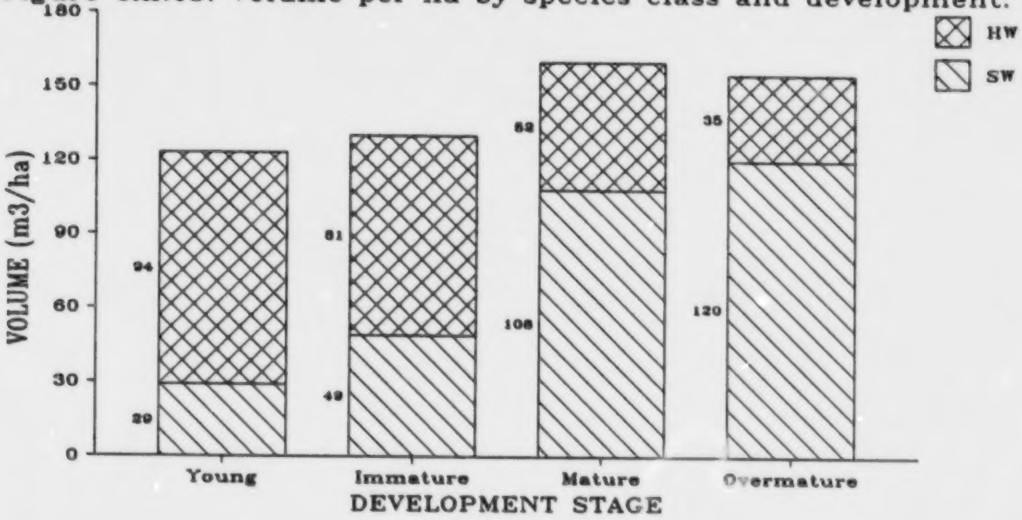


Figure CAR4c. Total area (hax1000) by development stage.

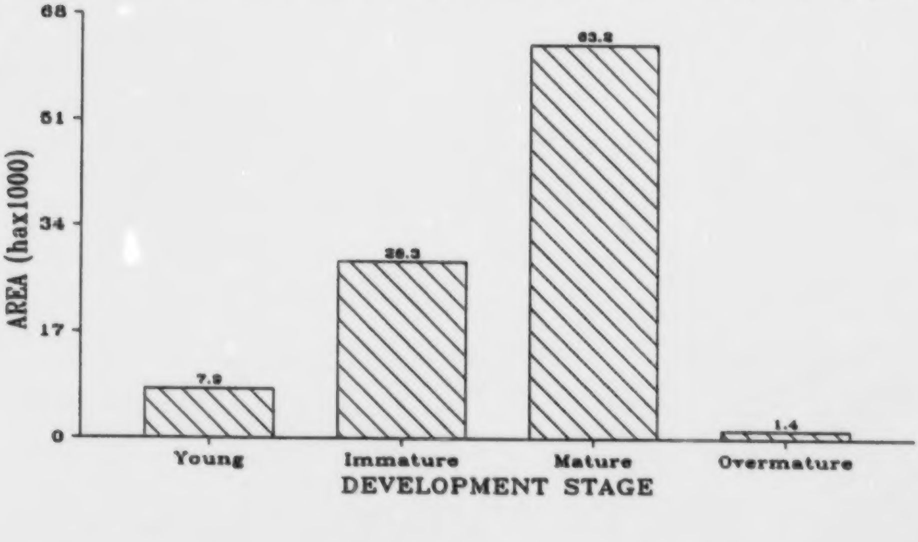


Table CAR8. Gross merchantable volume (m3) by species and DBH class (cm) on the Carleton License.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	662116	2031185	1956455	4649756	31.05
Balsam Fir	463440	1322574	794468	2580481	17.23
Jack Pine	0	8678	0	8678	.06
Red Pine	0	0	7991	7991	.05
White Pine	0	1346	94185	95531	.64
Cedar	93692	400316	611547	1105555	7.38
Hemlock	0	11638	83796	95434	.64
Larch	10170	50851	37291	98312	.66
TOTAL SOFTWOOD	1229417	3826588	3585733	8641738	57.71
Red Maple	134705	543360	805204	1483269	9.91
Sugar Maple	196205	558972	1101006	1856183	12.40
Yellow Birch	66968	225127	854914	1147009	7.66
Beech	159408	323011	405511	887930	5.93
Other Tolerant	7960	2653	0	10613	.07
Total Tolerant	565247	1653124	3166634	5385004	35.96
White Birch	86540	196332	118832	401704	2.68
Poplar	37787	154299	273959	466046	3.11
Other Intolerant	8447	25341	45052	78841	.53
Total Intolerant	132775	375972	437844	946591	6.32
TOTAL HARDWOOD	698022	2029096	3604477	6331595	42.29
TOTAL ALL SPECIES	1927439	5855684	7190210	14973333	100.00
PERCENT	12.87	39.11	48.02	100.00	

Figure CAR5. Volume by species class and DBH class.

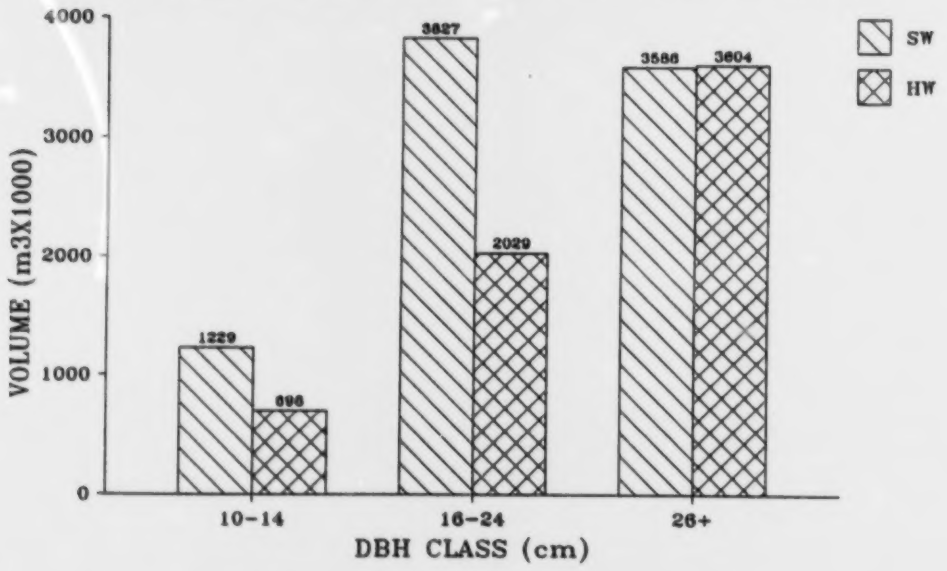
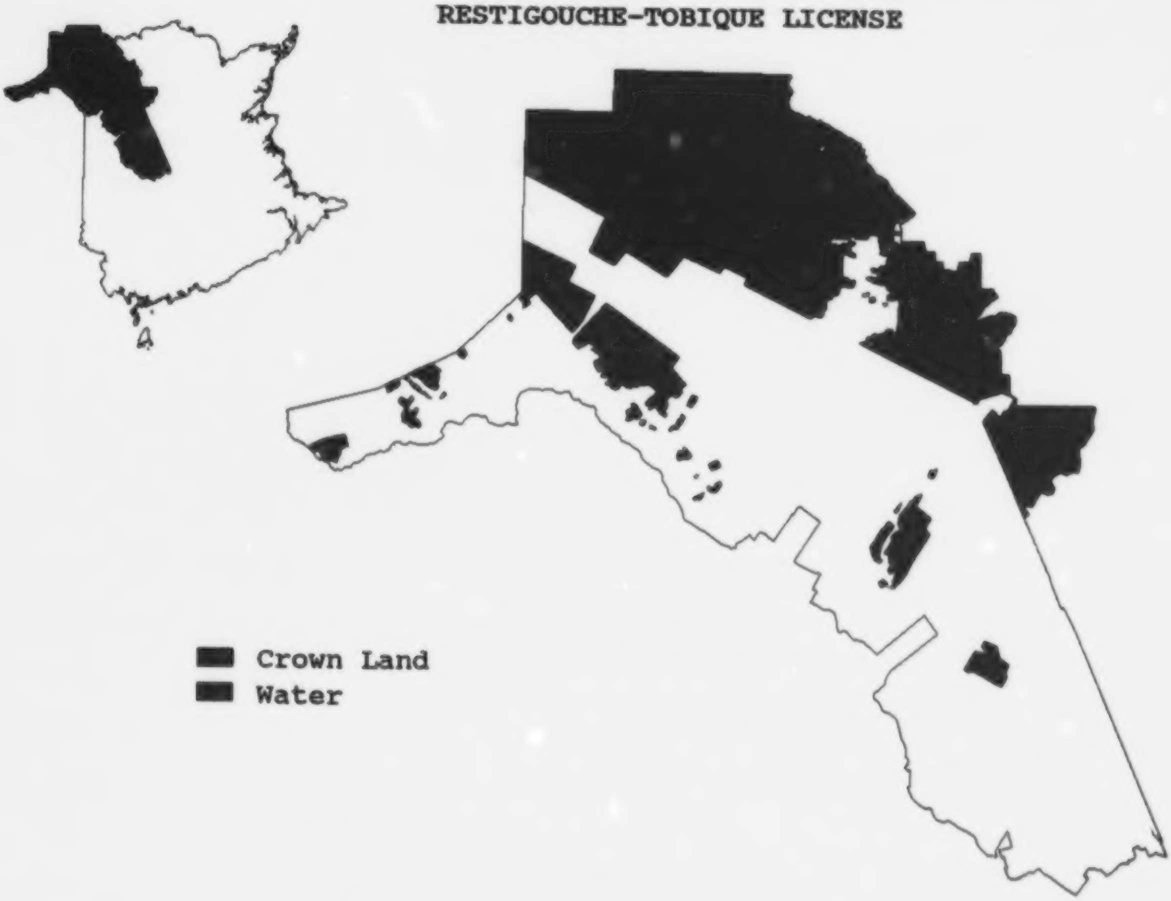


Table CAR9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Carleton License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	5.96	10	6.25	10	1.48	10	1.38
12	4.59	12	5.00	12	1.60	12	1.56
14	3.48	14	3.95	14	1.85	14	1.83
16	2.63	16	3.10	16	2.22	16	2.17
18	2.05	18	2.45	18	2.72	18	2.60
20	1.73	20	2.00	20	3.34	20	3.12
22	1.67	22	1.75	22	4.10	22	3.71
24	1.87	24	1.70	24	4.98	24	4.39
26	2.33	26	1.86	26	5.98	26	5.15
28	3.06	28	2.21	28	7.12	28	6.00
30	4.05	30	2.77	30	8.38	30	6.93
32	5.29	32	3.52	32	9.76	32	7.94
34	6.81	34	4.48	34	11.28	34	9.04
36	8.58	36	5.64	36	12.92	36	10.22
38	10.61	38	7.00	38	14.68	38	11.48
40	12.91	40	8.56	40	16.58	40	12.83
42	15.47	42	10.32	42	18.60	42	14.26
44	18.29	44	12.28	44	20.75	44	15.77
46	21.37	46	14.44	46	23.02	46	17.36
48	24.71	48	16.80	48	25.42	48	19.04
50	28.32	50	19.36	50	27.95	50	20.81
%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=16.7348669 C1=-1.4050190 C2= .032734		%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=15.5180415 C1=-1.1778318 C2= .0250940 R= .8074		%CULL=C0+C1(DBH)+C2(DBH*DBH) C0=2.7863123 C1= .2890239 C2= .015845		%CULL=C0+C1(SBD)+C2(SBD*SBD) C0=1.7290568 C1=-.1388885 C2= .0104084 R= .9914	
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	4.68	10-14	5.07	10-14	1.64	10-14	1.59
16-24	1.99	16-24	2.20	16-24	3.47	16-24	3.20
26+	12.45	26+	8.40	26+	15.57	26+	12.06
ALL	8.85	ALL	6.45	ALL	10.70	ALL	8.46

RESTIGOUCHE-TOBIQUE LICENSE



The Restigouche-Tobique License is located in the northwest corner of the province and encompasses the upper Saint John River with its many tributaries, Restigouche and Kedgewick River watersheds. Approximately 42 percent of the license is covered in a coniferous forest, predominantly of balsam fir, 30 percent is deciduous and 28 percent is covered by a mixed-wood forest. Approximately 40 percent of the productive forest land is in the mature development stage. Balsam fir and spruce make up 69 percent of the total merchantable volume on the license. Other predominant species by merchantable volume include yellow birch, sugar maple, white birch, red maple, poplar, cedar and beech. Approximately 46 percent of the merchantable volume is in the 16-24 cm DBH size class, 37 percent is in the 26+ cm DBH range and 17 percent is in the 10-14 cm DBH class.

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Table R-T4. Area (ha) by cover type, forest unit and development stage on the Restigouche-Tobique License.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	656	1125	12745	19264	6575	40365	10.73
	BFSP	1455	1477	23208	76906	7651	110697	29.43
	PINE	18	2	3	35	0	58	.02
	PSSP	25	39	1771	1613	385	3833	1.02
	OTSW	4	157	848	1600	1097	3706	.99
	TOTAL	2158	2800	38575	99418	15708	158659	42.18
SH	SPTH	0	5	735	792	177	1709	.45
	SPIH	274	844	4854	3255	286	9513	2.53
	BFTH	76	107	2529	11980	1729	16421	4.37
	BFIH	1284	1529	5531	7058	814	16216	4.31
	TOTAL	1634	2485	13649	23085	3006	43859	11.66
HS	THSP	31	32	823	1388	13	2287	.61
	IHSP	1082	950	6610	2841	369	11852	3.15
	THBF	131	171	7261	12233	1525	21321	5.67
	IHBF	7786	4246	8466	6196	353	27047	7.19
	TOTAL	9030	5399	23160	22658	2260	62507	16.62
H	TOHW	418	2214	28087	13088	582	44389	11.80
	THIH	1121	1121	5947	1796	58	10043	2.67
	INHW	18373	6314	12446	6469	214	43816	11.65
	IHTH	3059	2098	6069	1527	94	12847	3.42
	TOTAL	22971	11747	52549	22880	948	111095	29.54
ALL COVER TYPES	TOTAL	35793	22431	127933	168041	21922	376120	100.00
ALL COVER TYPES	PERCENT	9.52	5.96	34.01	44.68	5.83	100.00	

Figure R-T3. Area by cover type and development stage.

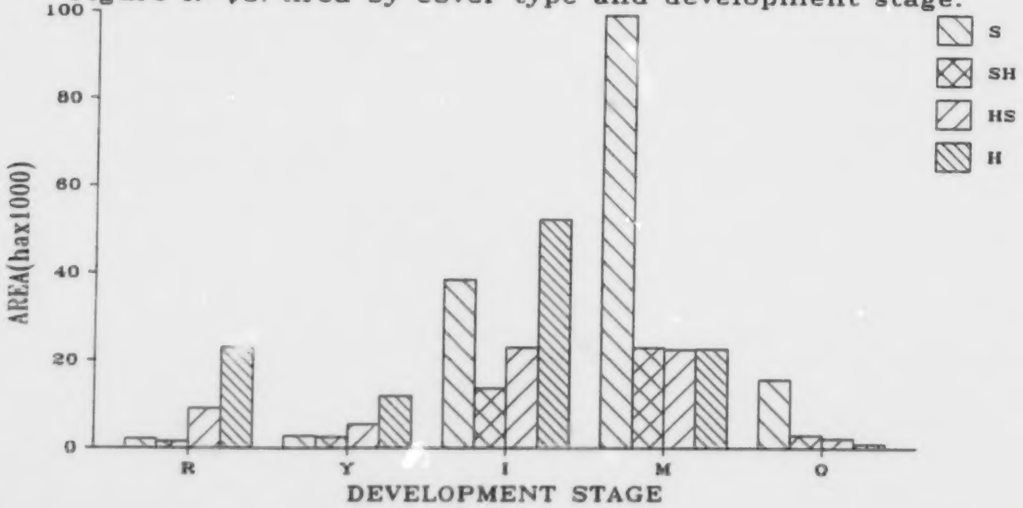


Table R-T5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Restigouche-Tobique License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	74736	2003486	3077301	1067845	6223368	12.49
		HW	6131	107902	206088	104810	424931	.85
	BFSP	SW	133532	3560808	12503701	1102679	17300720	34.72
		HW	12443	327552	1272373	159753	1772121	3.56
	PINE	SW	136	393	5291	0	5820	.01
		HW	10	10	189	0	209	.00
	PSSP	SW	1348	125171	117289	22949	266757	.54
		HW	49	2336	505	0	2890	.01
	OTSW	SW	11549	99998	226858	268746	607151	1.22
		HW	775	7412	16391	2193	26771	.05
SH	SPTH	SW	198	83987	80070	19534	183789	.37
		HW	122	24846	36068	13140	74176	.15
	SPIH	SW	26788	517123	266450	30807	841168	1.69
		HW	16984	166784	126481	14619	324868	.65
	BFTH	SW	8143	295559	1183995	188096	1675793	3.36
		HW	2440	67425	507840	86440	664145	1.33
	BFIH	SW	97599	744898	869056	70022	1781575	3.58
		HW	18720	119845	243959	24628	407152	.82
HS	THSP	SW	2030	70660	109376	549	182615	.37
		HW	991	48895	97860	934	148680	.30
	IHSP	SW	49272	443695	230892	18574	742433	1.49
		HW	42659	438738	178338	26546	686281	1.38
	THBF	SW	12759	368800	957592	82410	1421561	2.85
		HW	6957	502562	791040	109004	1409563	2.83
	IHBF	SW	298453	864168	443204	25262	1631087	3.27
		HW	121321	367073	342418	19517	850329	1.71
H	TOHW	SW	84672	549007	400959	28288	1062926	2.13
		HW	158926	2661656	1016084	61998	3898664	7.82
	THIH	SW	42731	267600	87305	2818	400454	.80
		HW	54051	410979	108503	3501	577034	1.16
	INHW	SW	564085	385825	334876	16623	1301409	2.61
		HW	125760	1097440	498582	19771	1741553	3.50
	IHTH	SW	127079	338127	39076	2392	506674	1.02
		HW	87747	428292	157900	9675	683614	1.37

Table R-T5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Restigouche-Tobique License.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SW	221301	5789856	15930440	2462219	24403816	48.98
	HW	19408	445212	1495546	266756	2226922	4.47
	TOTAL	240709	6235068	17425986	2728975	26630738	53.45
SH	SW	132728	1641567	2399571	308459	4482325	9.00
	HW	38266	378900	914348	138827	1470341	2.95
	TOTAL	170994	2020467	3313919	447286	5952666	11.95
HS	SW	362514	1747323	1741064	126795	3977696	7.98
	HW	171928	1357268	1409656	156001	3094853	6.21
	TOTAL	534442	3104591	3150720	282796	7072549	14.19
H	SW	818567	1540559	862216	50121	3271463	6.57
	HW	426484	4598367	1781069	94945	6900865	13.85
	TOTAL	1245051	6138926	2643285	145066	10172328	20.41
ALL COVER TYPES	SW	1535110	10719305	20933291	2947594	36135300	72.52
	HW	656086	6779747	5600619	656529	13692981	27.48
	TOTAL	2191196	17499052	26533910	3604123	49828281	100.00
ALL COVER TYPES (%)	SW	3.08	21.51	42.01	5.92	72.52	
	HW	1.32	13.61	11.24	1.32	27.48	
	TOTAL	4.40	35.12	53.25	7.23	100.00	

Table R-T6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Restigouche-Tobique License.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	66	157	160	162	157
		HW	5	8	11	16	11
	BFSP	SW	90	153	163	144	158
		HW	8	14	17	21	16
	PINE	SW	68	131	151	0	146
		HW	5	3	5	0	5
	PSSP	SW	35	71	73	60	70
		HW	1	1	0	0	1
	OTSW	SW	74	118	142	245	164
		HW	5	9	10	2	7
SH	SPTH	SW	40	114	101	110	108
		HW	24	34	46	74	43
	SPIH	SW	32	107	82	108	91
		HW	20	34	39	51	35
	BFTH	SW	76	117	99	109	103
		HW	23	27	42	50	41
	BFIH	SW	64	135	123	86	119
		HW	12	22	35	30	27
HS	THSP	SW	63	86	79	42	81
		HW	31	59	71	72	66
	IHSP	SW	52	67	81	50	69
		HW	45	66	63	72	64
	THBF	SW	75	51	78	54	67
		HW	41	69	65	71	67
	IHBF	SW	70	102	72	72	85
		HW	29	43	55	55	44
H	TOHW	SW	38	20	31	49	24
		HW	72	95	78	107	89
	THIH	SW	38	45	49	49	45
		HW	48	69	60	60	65
	INHW	SW	89	31	52	78	51
		HW	20	88	77	92	68
	INTH	SW	61	56	26	25	52
		HW	42	71	103	103	70

Table R-T7. Gross merchantable volume (m3) by species and development stage on the Restigouche-Tobique License.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	438845	3405803	6130525	1128377	11103550	22.28
Balsam Fir	1016915	6959200	13889991	1306377	23172483	46.50
Jack Pine	9668	7998	9565	611	27842	.06
Red Pine	2416	1912	3979	2771	11078	.02
White Pine	19675	37835	132985	13578	204073	.41
Cedar	36768	264861	703712	488328	1493669	3.00
Hemlock	5538	4283	18077	836	28734	.06
Larch	5285	37413	44457	6716	93871	.19
TOTAL SOFTWOOD	1535110	10719305	20933291	2947594	36135300	72.52
Red Maple	107274	1069071	853882	88078	2118305	4.25
Sugar Maple	67850	1930550	930663	90907	3019970	6.06
Yellow Birch	102125	1391254	1761739	253615	3508733	7.04
Beech	31463	364021	123452	49920	568856	1.14
Other Tolerant	0	0	0	0	0	.00
Total Tolerant	308712	4754896	3669736	482520	9215864	18.50
White Birch	211418	1069165	1308570	104553	2693706	5.41
Poplar	96565	857547	588870	62052	1605034	3.22
Other Intolerant	39391	98139	33443	7404	178377	.36
Total Intolerant	347374	2024851	1930883	174009	4477117	8.99
TOTAL HARDWOOD	656086	6779747	5600619	656529	13692981	27.48
TOTAL ALL SPECIES	2191196	17499052	26533910	3604123	49828281	100.00
PERCENT	4.40	35.12	53.25	7.23	100.00	

Figure R-T4a. Total volume by species class and development.

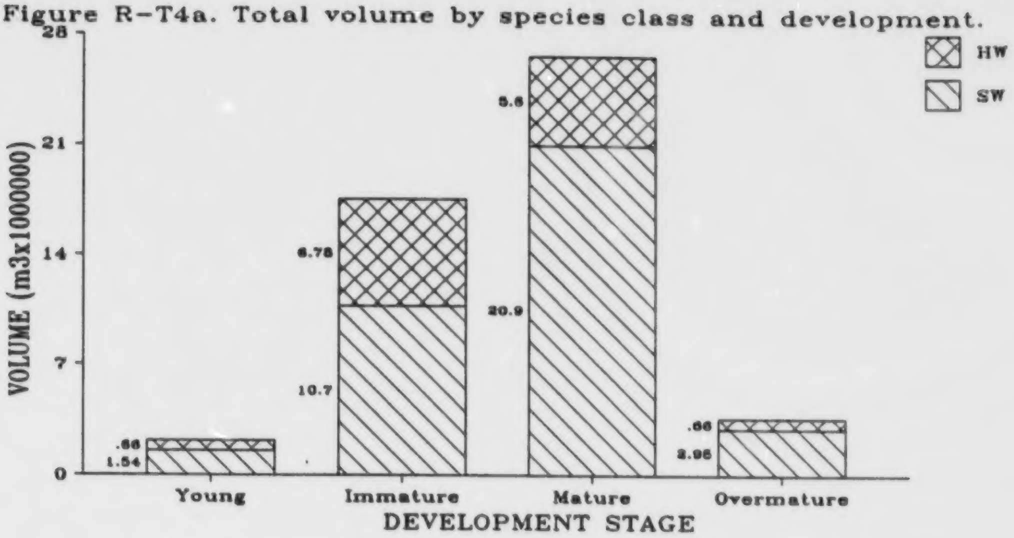


Figure R-T4b. Volume per ha by species class and development.

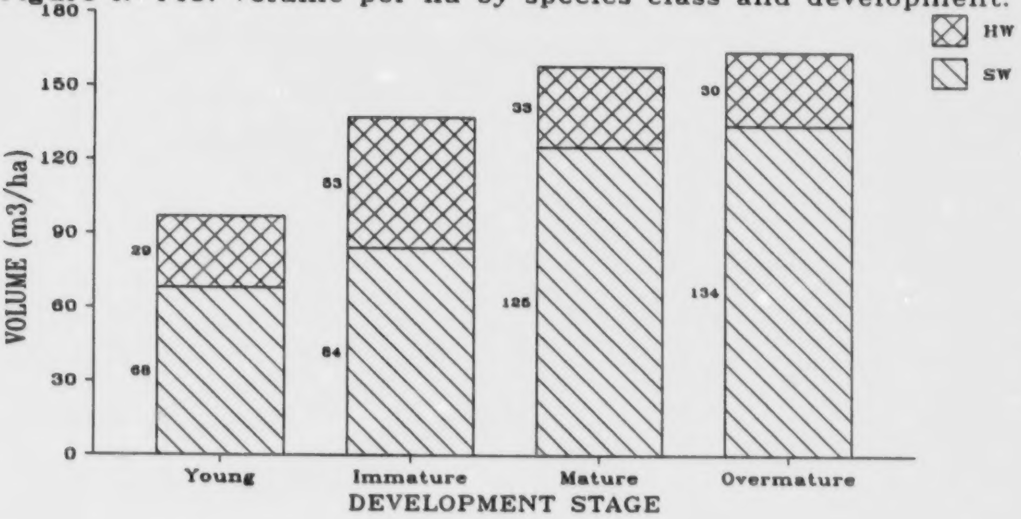


Figure R-T4c. Total area (hax1000) by development stage.

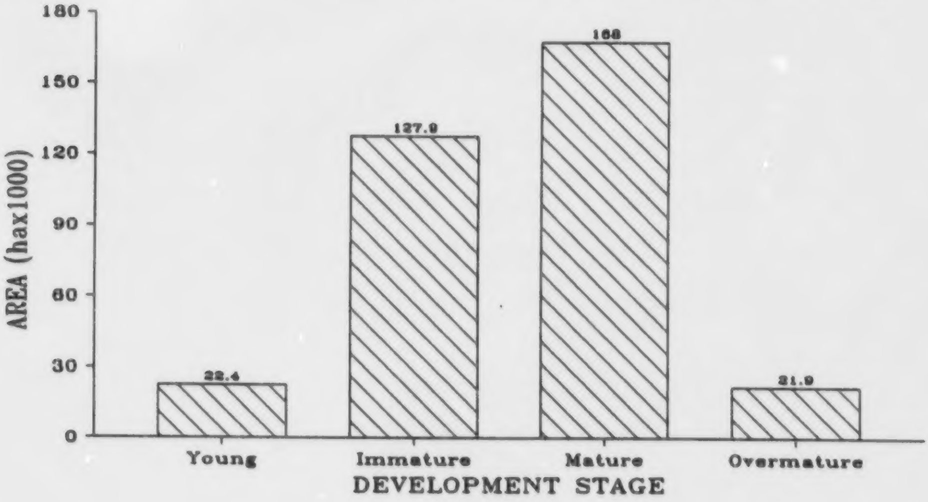


Table R-T8. Gross merchantable volume (m3) by species and DBH class (cm) on the Restigouche-Tobique License.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	1481150	4778229	4844172	11103550	22.28
Balsam Fir	4712594	12848639	5611250	23172483	46.50
Jack Pine	0	18562	9280	27842	.06
Red Pine	0	7385	3693	11078	.02
White Pine	0	26618	177455	204073	.41
Cedar	70498	339270	1083901	1493669	3.00
Hemlock	0	19156	9578	28734	.06
Larch	52150	31291	10431	93871	.19
TOTAL SOFTWOOD	6316391	18069151	11749758	36135300	72.52
Red Maple	556926	914949	646430	2118305	4.25
Sugar Maple	265268	759073	1995629	3019970	6.06
Yellow Birch	216291	793070	2499371	3508733	7.04
Beech	44742	108658	415457	568856	1.14
Other Tolerant	0	0	0	0	.00
Total Tolerant	1083227	2575750	5556887	9215864	18.50
White Birch	859984	1278600	555122	2693706	5.41
Poplar	180727	765941	658366	1605034	3.22
Other Intolerant	87677	51398	39303	178377	.36
Total Intolerant	1128388	2095939	1252790	4477117	8.99
TOTAL HARDWOOD	2211615	4671689	6809677	13692981	27.48
TOTAL ALL SPECIES	8528007	22740839	18559435	49828281	100.00
PERCENT	17.11	45.64	37.25	100.00	

Figure R-T5. Volume by species class and DBH class.

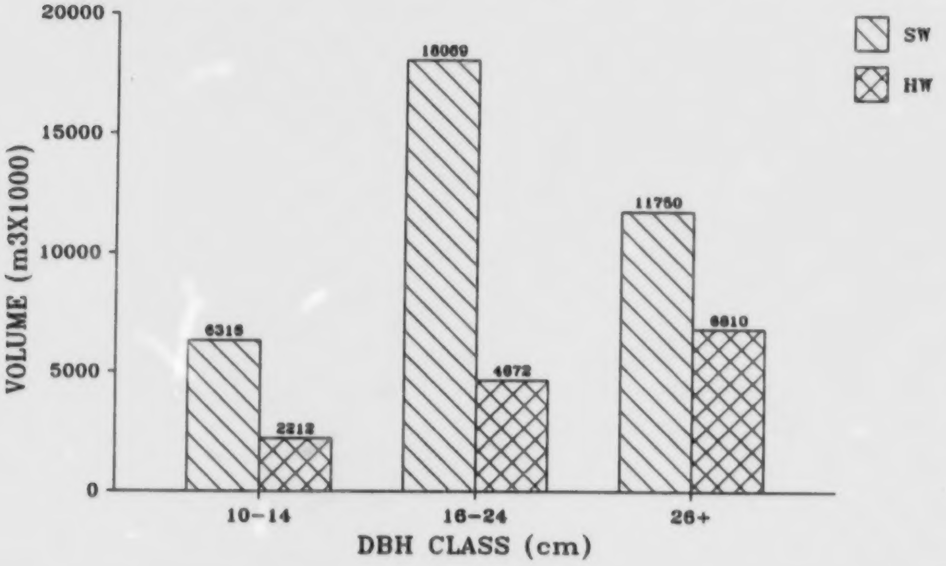


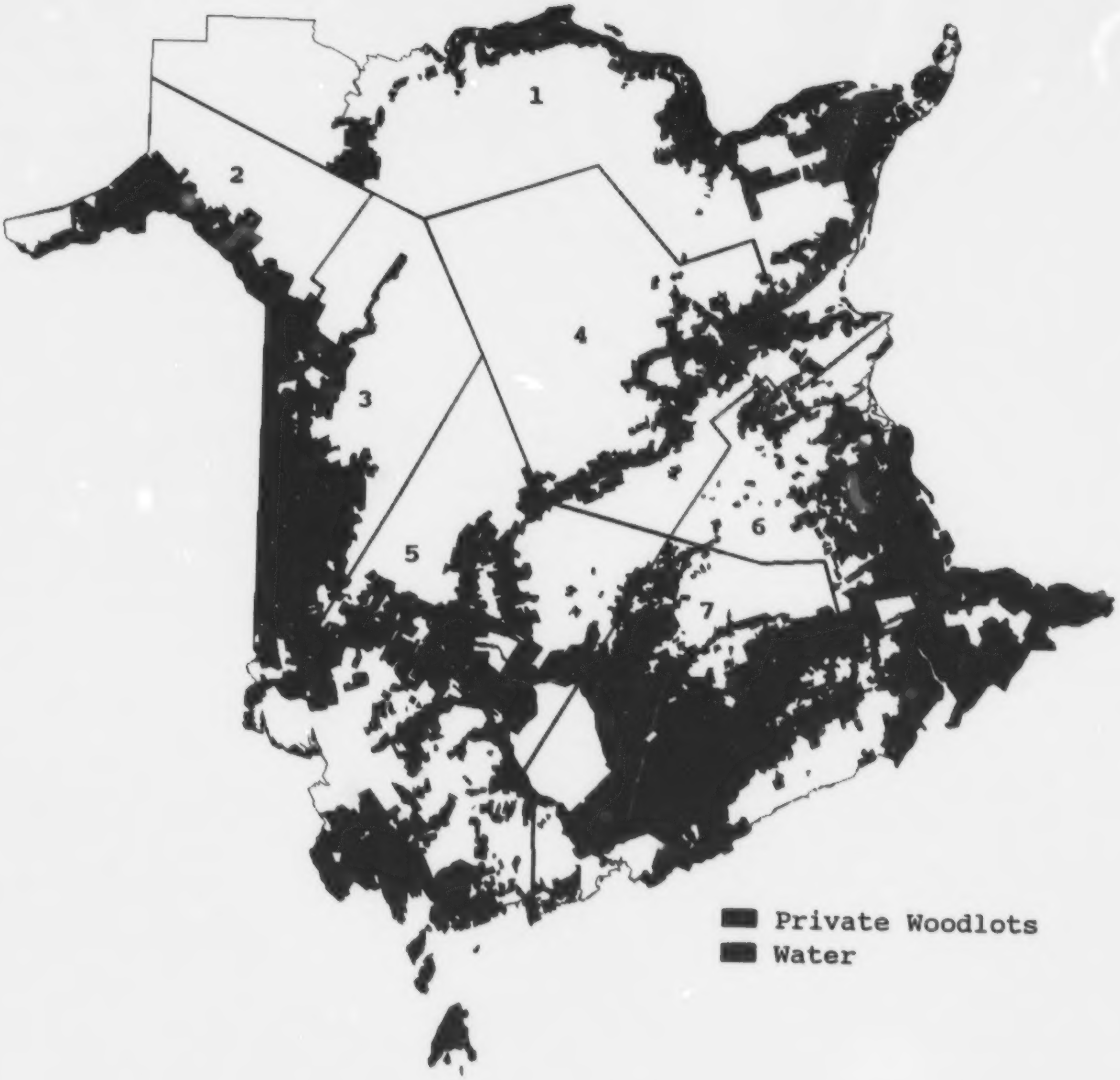
Table R-T9. Spruce and balsam fir cull factors (%) by DBH(cm) and SBD(cm) - Restigouche-Tobique License.

SPRUCE				BALSAM FIR			
DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10	1.38	10	1.19	10	2.66	10	2.63
12	2.23	12	1.96	12	2.68	12	2.67
14	3.00	14	2.66	14	2.75	14	2.74
16	3.70	16	3.31	16	2.85	16	2.84
18	4.32	18	3.91	18	2.99	18	2.96
20	4.88	20	4.44	20	3.17	20	3.11
22	5.35	22	4.92	22	3.39	22	3.28
24	5.76	24	5.34	24	3.65	24	3.48
26	6.09	26	5.71	26	3.95	26	3.70
28	6.34	28	6.01	28	4.28	28	3.95
30	6.53	30	6.26	30	4.65	30	4.22
32	6.64	32	6.45	32	5.06	32	4.52
34	6.67	34	6.59	34	5.51	34	4.85
36	6.63	36	6.66	36	6.00	36	5.20
38	6.52	38	6.68	38	6.52	38	5.57
40	6.34	40	6.65	40	7.09	40	5.97
42	6.08	42	6.55	42	7.69	42	6.40
44	5.74	44	6.40	44	8.33	44	6.85
46	5.34	46	6.19	46	9.01	46	7.32
48	4.86	48	5.92	48	9.73	48	7.82
50	4.31	50	5.59	50	10.49	50	8.35

%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)	%CULL=C0+C1(DBH)+C2(DBH*DBH)	%CULL=C0+C1(SBD)+C2(SBD*SBD)
C0=-3.9505928	C0=-3.4986580	C0=3.0997747	C0=2.7730078
C1= .6254105	C1= .5407265	C1=-.0923007	C1=-.0462131
C2= -.009206	C2= -.0071772	C2= .004800	C2= .0031542
	R= .9431		R= .8477

DBH(cm)	%CULL	SBD(cm)	%CULL	DBH(cm)	%CULL	SBD(cm)	%CULL
10-14	2.20	10-14	1.94	10-14	2.70	10-14	2.68
16-24	4.80	16-24	4.38	16-24	3.21	16-24	3.13
26+	6.01	26+	6.28	26+	6.79	26+	5.75
ALL	5.18	ALL	5.21	ALL	5.35	ALL	4.69

PRIVATE WOODLOTS



FOREST PRODUCTS MARKETING BOARDS

1. NORTH SHORE (NS) FOREST PRODUCTS MARKETING BOARD
2. MADAWASKA (MAD) FOREST PRODUCTS MARKETING BOARD
3. CARLETON-VICTORIA (C-V) FOREST PRODUCTS MARKETING BOARD
4. NORTHUMBERLAND (NOR) COUNTY FOREST PRODUCTS MARKETING BOARD
5. YORK-SUNBURY-CHARLOTTE (YSC) FOREST PRODUCTS MARKETING BOARD
6. SOUTHEAST NEW BRUNSWICK (SENB) FOREST PRODUCTS MARKETING BOARD
7. SOUTHERN NEW BRUNSWICK (SNB) FOREST PRODUCTS MARKETING BOARD

PRIVATE WOODLOT SUMMARY

Private Woodlots in New Brunswick, as defined in this report, are lands owned by individuals who do not own or operate a wood processing facility; Georgia Pacific and Pejebscot holdings are not included as Private Woodlots, rather are reported as Other Industrial Freehold. Seven regional marketing boards assist private woodlot owners in the management of their woodlots and the marketing of their wood products. This section will present area and volume information for each marketing board and total Private Woodlot lands.

AREA

The total area of Private Woodlots in New Brunswick is approximately 2 549 5900 hectares, of which 71 percent is productive forest land, 17 percent is cleared land, 7 percent is non-productive forest land/wasteland and 5 percent is water. There is approximately 1 802 031 hectares of productive forest land on all seven marketing boards ranging from 99 164 hectares on the Madawaska Marketing Board to 448 149 hectares on the SNB Marketing Board.

The softwood (S) cover type comprises 36 percent of all productive forest land assigned to a cover type (R - O) on Private Woodlots ranging from 6 635 hectares on the Madawaska Marketing Board to 127 704 hectares on the SNB Marketing Board. The spruce-balsam fir (SPBF) and the balsam fir-spruce (BFSP) forest units (FUNAS) represent 76 percent of this area (or 22 percent of total productive forest land). The hardwood (H) cover type comprises 29 percent of all productive forest land assigned to a cover type on Private Woodlots. Approximately 35 percent of productive forest land assigned to a cover type on Private Woodlots is in a mixed-wood condition.

Approximately 22 percent of productive forest land on Private Woodlots is in the mature and overmature development stages, 49 percent in the immature-young and -old stages and 29 percent in the regenerating stage including cuts, burns and old fields.

VOLUME - softwood

The total gross merchantable volume of softwood on Private Woodlots is 82 037 031 cubic metres or approximately 59 percent of the total gross merchantable volume on Private Woodlots.

The distribution of spruce-balsam fir volume varies across seven marketing boards, ranging from 15.81 cubic metres per productive hectare on the Madawaska Marketing Board to 40.73 cubic metres per productive hectare on the SENB Marketing Board.

The distribution of balsam fir ranges from 8.82 cubic metres per productive hectare on the Madawaska Marketing Board to 14.15 cubic metres per productive hectare on the North Shore Marketing Board. The distribution of spruce ranges from a low of 6.99 cubic metres per productive hectare on the Madawaska Marketing Board to a high of 29.92 cubic metres per productive hectare on the SENB Marketing Board.

Cedar comprises approximately 17 percent of the total gross merchantable softwood volume on Private Woodlots and ranges from 2.12 cubic metres per productive hectare on the SENB Marketing Board to 14.78 cubic metres per productive hectare on the Carleton-Victoria Marketing Board.

The remaining gross merchantable softwood volume on Private Woodlots totals 11 168 555 cubic metres. This volume is comprised of 30 percent larch (highest concentration being 3.01 cubic metres per productive hectare on the SENB Marketing Board), 27 percent white pine (highest concentration being 3.35 cubic metres per hectare on the Northumberland Marketing Board), 25 percent hemlock (highest concentration being 3.79 cubic metres per productive hectare on the Y-S-C Marketing Board), 16 percent jack pine (highest concentration being 2.30 cubic metres per productive hectare on the Northumberland Marketing Board) and 2 percent red pine (highest concentration being 0.35 cubic metres per productive hectare on the SNB Marketing Board).

VOLUME - Hardwood

The total gross merchantable volume of hardwood on Private Woodlots is 57 372 268 cubic metres or approximately 41 percent of the total gross merchantable volume. The tolerant hardwoods represent 51 percent of this volume and is comprised of 48 percent red maple, 25 percent sugar maple, 13 percent yellow birch, 13 percent beech and 1 percent other tolerant hardwood species.

The distribution of red maple ranges from a low of 3.95 cubic metres per productive hectare on the Madawaska Marketing Board to a high of 10.02 cubic metres per productive hectare on the SENB Marketing Board.

The distribution of sugar maple, the more commercially valuable of the two maple species, ranges from 0.93 cubic metres per productive hectare on the SENB Marketing Board to 12.03 cubic metres per productive hectare on the Carleton-Victoria Marketing Board.

The highest concentration of yellow birch and beech occurs on the Carleton-Victoria Marketing Board at 3.12 and 4.84 cubic metres per productive hectare respectively.

Intolerant hardwoods represent approximately 49 percent of the gross merchantable hardwood volume on Private Woodlots and is comprised of 63 percent poplar, 28 percent white birch and 9 percent other intolerant hardwood species.

The distribution of poplar ranges from 7.60 cubic metres per productive hectare on the York-Sunbury-Charlotte Marketing Board to 14.07 cubic metres per productive hectare on the Madawaska Marketing Board.

White birch merchantable volume ranges from 1.98 cubic metres per productive hectare on the Carleton-Victoria Marketing Board to 7.23 cubic metres per productive hectare on the SNB Marketing Board.

VOLUME - Tree Size

The volume of log size (26+ cm DBH) spruce on Private Woodlots is 11 001 206 cubic metres and ranges from 2.22 cubic metres per productive hectare on the Madawaska Marketing Board to 8.04 cubic metres on the SENB Marketing Board.

The volume of log size (26+ cm DBH) balsam fir on Private Woodlots is 2 621 427 cubic metres ranging from 0.99 cubic metres per productive hectare on the SENB Marketing Board to 2.58 cubic metres per productive hectare on the Carleton-Victoria Marketing Board.

The volume of log size (26+ cm DBH) white pine on Private Woodlots is 2 309 880 cubic metres ranging from 0.07 cubic metres per productive hectare on the Madawaska Marketing Board to 2.41 cubic metres per productive hectare on the Northumberland Marketing Board.

The volume of log size (26+ cm DBH) red and jack pine, hemlock and larch is 3 543 318 cubic metres and is scattered in various concentrative areas on all Marketing Boards.

The volume of log size (26+ cm DBH) tolerant hardwoods on Private Woodlots is 9 172 876 cubic metres and ranges from 2.64 cubic metres per productive hectare on the SENB Marketing Board to 6.40 cubic metres per productive hectare on the York-Sunbury-Charlotte Marketing Board.

The volume of log size (26+ cm DBH) intolerant hardwoods is 8 643 092 cubic metres ranging from 3.22 cubic metres per productive hectare on the SENB Marketing Board to 6.30 cubic metres per productive hectare on the Carleton-Victoria Marketing Board.

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Table W1. Area (ha) by land classification and marketing board on Private Woodlots.

LAND CLASSIFICATION	MARKETING BOARDS							TOTAL
	NS	MAD	C-V	NOR	YSC	SENB	SNB	
FOREST LAND								
Productive	266429	99164	182445	142537	368413	294894	448149	1802031
Non-productive	10475	3436	5325	3227	16481	24432	17370	80746
TOTAL	276904	102600	187770	145764	384894	319326	465519	1882777
CLEARED LAND								
Cultivated	30892	20858	82693	9399	36794	54061	62561	297258
Occupied	26568	6277	10437	7945	25908	24662	34609	136406
TOTAL	57460	27135	93130	17344	62702	78723	97170	433664
WASTE LAND	17341	3069	4251	6839	24398	18794	23146	97838
TOTAL LAND	351705	132804	285151	169947	471994	416843	585835	2414279
WATER	6369	2643	7446	6987	36981	13019	61866	135311
TOTAL AREA	358074	135447	292597	176934	508975	429862	647701	2549590

Figure W1. Area distribution (%) by Marketing Board Zone.

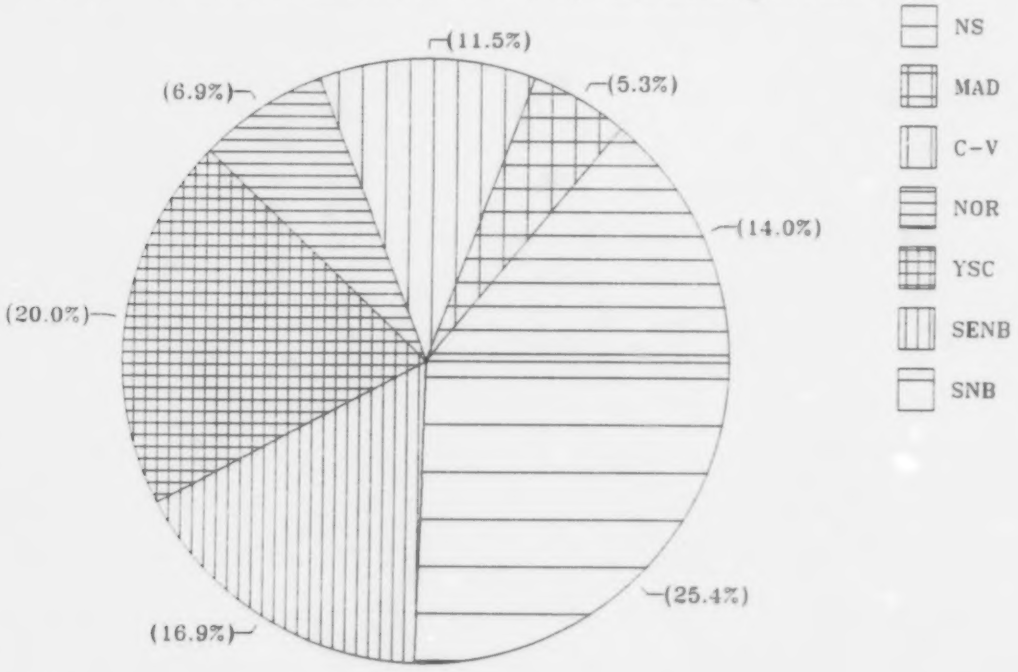


Table W2. Productive forest land (ha) by development stage and marketing board on Private Woodlots.

DEVELOPMENT STAGE	MARKETING BOARD NS	MAD	C-V	NOR	YSC	SENB	SNB	TOTAL
Regenerating	27360	7046	7354	11078	22578	20558	44524	140498
Young	55771	11084	11099	24435	11317	27959	18357	160022
Immature	98173	32775	69824	46392	153801	143543	176251	720759
Mature	40272	9769	46242	29945	106830	47781	118407	399246
Overmature	641	26	394	280	1966	878	2271	6456
TOTAL	222217	60700	134913	112130	296492	240719	359810	1426981
Cuts	28703	29759	35337	23645	58685	36935	73459	286523
Burns	1875	8	0	3263	743	378	1522	7789
Fields	13634	8697	12195	3499	12493	16862	13358	80738
TOTAL	44212	38464	47532	30407	71921	54175	88339	375050
PRODUCTIVE FOREST LAND	266429	99164	182445	142537	368413	294894	448149	1802031
Plantations	509	1340	1152	390	1059	728	1771	6949

Table W2a. Distribution of productive forest land (%) by development stage and marketing board on Private Woodlots.

DEVELOPMENT STAGE	MARKETING BOARD NS	MAD	C-V	NOR	YSC	SENB	SNB	TOTAL
Regenerating	1.52	.39	.41	.61	1.25	1.14	2.47	7.80
Young	3.09	.62	.62	1.36	.63	1.55	1.02	8.88
Immature	5.45	1.82	3.87	2.57	8.53	7.97	9.78	40.00
Mature	2.23	.54	2.57	1.66	5.93	2.65	6.57	22.16
Overmature	.04	.00	.02	.02	.11	.05	.13	.36
TOTAL	12.33	3.37	7.49	6.22	16.45	13.36	19.97	79.19
Cuts	1.59	1.65	1.96	1.31	3.26	2.05	4.08	15.90
Burns	.10	.00	.00	.18	.04	.02	.08	.43
Fields	.76	.48	.68	.19	.69	.94	.74	4.48
TOTAL	2.45	2.13	2.64	1.69	3.99	3.01	4.90	20.81
PRODUCTIVE FOREST LAND	14.78	5.50	10.12	7.91	20.44	16.36	24.87	100.00
Plantations	.03	.07	.06	.02	.06	.04	.10	.39

Table W3. Area (ha) by cover type, development stage and marketing board on Private Woodlots.

COVER TYPE	DEVELOPMENT STAGE	MARKETING BOARD							TOTAL
		NS	MAD	C-V	NOR	YSC	SENB	SNB	
S	Regenerating	10154	1056	1178	3002	7188	15120	23823	61521
	Young	17815	1127	1130	8379	3683	14546	10234	56914
	Immature	33971	3025	10878	21968	45699	57080	60782	233403
	Mature	23684	1423	17904	17187	50459	22075	32316	165048
	Overmature	527	4	138	130	1509	242	549	3099
	TOTAL	86151	6635	31228	50666	108538	109063	127704	519985
SH	Regenerating	1834	330	330	1754	3250	2152	5944	15594
	Young	4789	594	370	5174	1905	4952	2376	20160
	Immature	12643	4042	10206	10114	30863	27476	28509	123853
	Mature	4940	1158	6555	5813	21199	7844	17905	65414
	Overmature	50	7	113	7	195	48	61	481
	TOTAL	24256	6131	17574	22862	57412	42472	54795	225502
HS	Regenerating	3130	1142	742	2182	4540	1302	6063	19101
	Young	7467	2269	862	4892	2441	4833	2642	25406
	Immature	18667	7259	14845	8999	36862	29094	31547	147273
	Mature	5491	2743	9531	4532	17514	9020	24452	73283
	Overmature	57	15	80	16	70	106	100	444
	TOTAL	34812	13428	26060	20621	61427	44355	64804	265507
H	Regenerating	12242	4518	5104	4140	7600	1984	8694	44282
	Young	25700	7094	8737	5990	3288	3628	3105	57542
	Immature	32892	18449	33895	5311	40377	29893	55413	216230
	Mature	6157	4445	12252	2413	17658	8842	43734	95501
	Overmature	7	0	63	127	192	482	1561	2432
	TOTAL	76998	34506	60051	17981	69115	44829	112507	415987
ALL	Regenerating	27360	7046	7354	11078	22578	20558	44524	140498
	Young	55771	11084	11099	24435	11317	27959	18357	160022
	Immature	98173	32775	69824	46392	153801	143543	176251	720759
	Mature	40272	9769	46242	29945	106830	47781	118407	399246
	Overmature	641	26	394	280	1966	878	2271	6456
	TOTAL	222217	60700	134913	112130	296492	240719	359810	1426981

Table W3a. Percent distribution of area (%) by cover type, development stage and marketing board on Private Woodlots.

COVER TYPE	DEVELOPMENT STAGE	MARKETING BOARD							TOTAL
		NS	MAD	C-V	NOR	YSC	SENB	SNB	
S	Regenerating	.71	.07	.08	.21	.50	1.06	1.67	4.31
	Young	1.25	.08	.08	.59	.26	1.02	.72	3.99
	Immature	2.38	.21	.76	1.54	3.20	4.00	4.26	16.36
	Mature	1.66	.10	1.25	1.20	3.54	1.55	2.26	11.57
	Overmature	.04	.00	.01	.01	.11	.02	.04	.22
	TOTAL	6.04	.46	2.19	3.55	7.61	7.64	8.95	36.44
SH	Regenerating	.13	.02	.02	.12	.23	.15	.42	1.09
	Young	.34	.04	.03	.36	.13	.35	.17	1.41
	Immature	.89	.28	.72	.71	2.16	1.93	2.00	8.68
	Mature	.35	.08	.46	.41	1.49	.55	1.25	4.58
	Overmature	.00	.00	.01	.00	.01	.00	.00	.03
	TOTAL	1.70	.43	1.23	1.60	4.02	2.98	3.84	15.80
HS	Regenerating	.22	.08	.05	.15	.32	.09	.42	1.34
	Young	.52	.16	.06	.34	.17	.34	.19	1.78
	Immature	1.31	.51	1.04	.63	2.58	2.04	2.21	10.32
	Mature	.38	.19	.67	.32	1.23	.63	1.71	5.14
	Overmature	.00	.00	.01	.00	.00	.01	.01	.03
	TOTAL	2.44	.94	1.83	1.45	4.30	3.11	4.54	18.61
H	Regenerating	.86	.32	.36	.29	.53	.14	.61	3.10
	Young	1.80	.50	.61	.42	.23	.25	.22	4.03
	Immature	2.31	1.29	2.38	.37	2.83	2.09	3.88	15.15
	Mature	.43	.31	.86	.17	1.24	.62	3.06	6.69
	Overmature	.00	.00	.00	.01	.01	.03	.11	.17
	TOTAL	5.40	2.42	4.21	1.26	4.84	3.14	7.88	29.15
ALL	Regenerating	1.92	.49	.52	.78	1.58	1.44	3.12	9.85
	Young	3.91	.78	.78	1.71	.79	1.96	1.29	11.21
	Immature	6.88	2.30	4.89	3.25	10.78	10.06	12.35	50.51
	Mature	2.82	.68	3.24	2.10	7.49	3.35	8.30	27.98
	Overmature	.04	.00	.03	.02	.14	.06	.16	.45
	TOTAL	15.57	4.25	9.45	7.86	20.78	16.87	25.21	100.00

Figure W2a. Area distribution (%) by land classification.

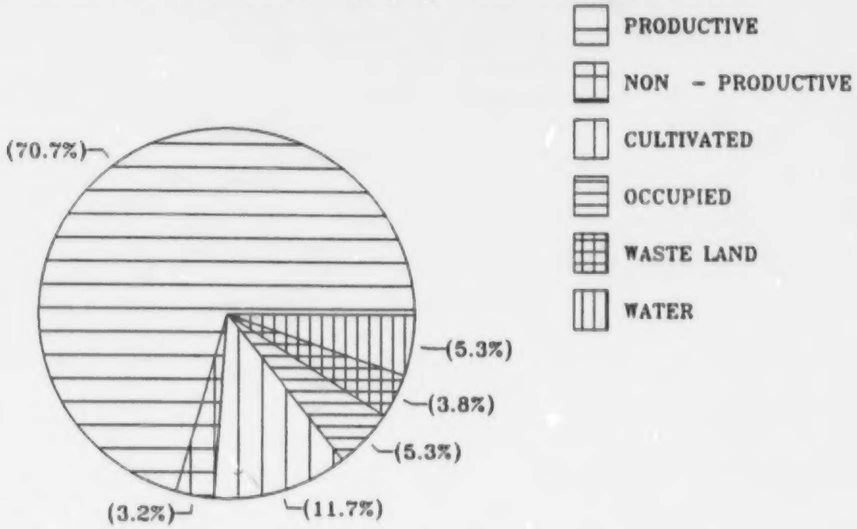


Figure W2b. Area distribution (%) by development stage.

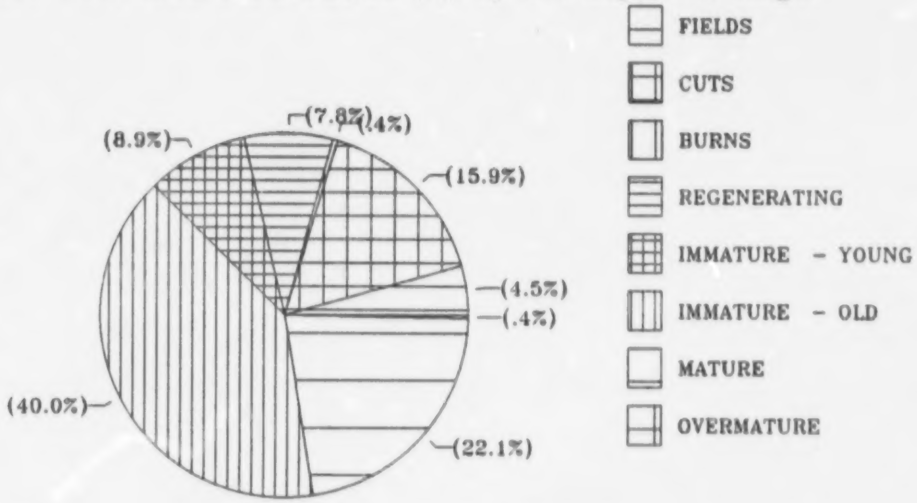


Figure W2c. Area distribution (%) by cover type.

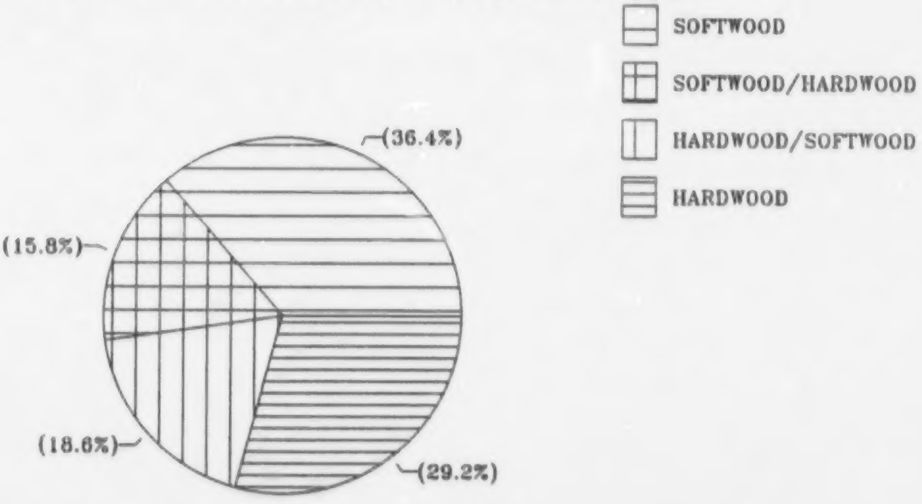


Table W4. Area (ha) by cover type, forest unit and development stage on Private Woodlots.

COVER TYPE	FOREST UNIT	DEVELOPMENT					TOTAL	PERCENT
		Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	33592	36064	171410	80390	538	321994	22.56
	BFSP	24326	7246	22506	18563	783	73424	5.15
	PINE	1282	5023	9221	2610	10	18146	1.27
	PSSP	155	568	2960	5667	72	9422	.66
	OTSW	2166	8013	27306	57818	1696	96999	6.80
	TOTAL	61521	56914	233403	165048	3099	519985	36.44
SH	SPTH	2344	4469	52130	31075	198	90216	6.32
	SPIH	3275	7884	43794	20224	91	75268	5.27
	BFTH	3208	3932	14801	7811	75	29827	2.09
	BFIH	6767	3875	13128	6304	117	30191	2.12
	TOTAL	15594	20160	123853	65414	481	225502	15.80
HS	THSP	2354	5557	48947	25278	131	82267	5.77
	IHSF	5619	9890	62293	31027	221	109050	7.64
	THBF	2335	3965	14072	6367	20	26759	1.88
	IHBF	8793	5994	21961	10611	72	47431	3.32
	TOTAL	19101	25406	147273	73283	444	265507	18.61
H	TOHW	6289	25488	85235	30737	144	147893	10.36
	THIH	5323	7180	26692	9754	36	48985	3.43
	INHW	24563	18468	77183	39238	2088	161540	11.32
	IHTH	8107	6406	27120	15772	164	57569	4.03
	TOTAL	44282	57542	216230	95501	2432	415987	29.15
ALL COVER TYPES	TOTAL	140498	160022	720759	399246	6456	1426981	100.00
ALL COVER TYPES	PERCENT	9.85	11.21	50.51	27.98	.45	100.00	

Figure W3. Area by cover type and development stage.

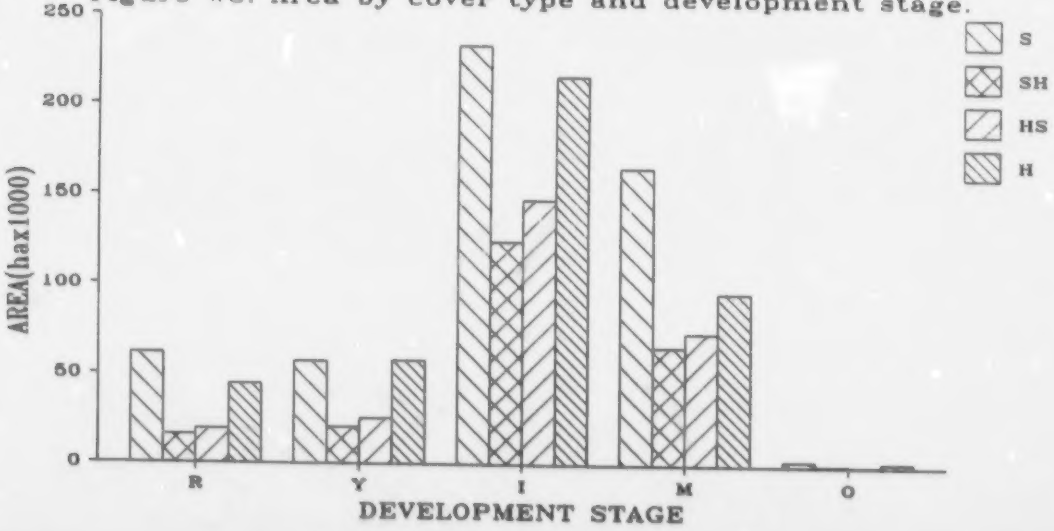


Table W5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on Private Woodlots.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	2643959	17067226	8729488	58695	28499368	20.44
		HW	279852	2355727	1294536	8709	3938824	2.83
	BFSP	SW	450628	2047938	1715651	59317	4273534	3.07
		HW	102573	479909	427314	29008	1038804	.75
	PINE	SW	484202	1235495	314133	1379	2035209	1.46
		HW	35711	86942	34060	142	156855	.11
	PSSP	SW	38884	215963	326318	4153	585318	.42
		HW	2220	12293	1308	0	15821	.01
	OTSW	SW	663499	3200218	7379806	165650	11409173	8.18
		HW	81737	356196	790414	14662	1243009	.89
SH	SPTH	SW	267197	3554487	2406235	14919	6242838	4.48
		HW	93496	1937086	1336759	8357	3375698	2.42
	SPIH	SW	462344	2979825	1407362	6798	4856329	3.48
		HW	199934	1808636	880391	3882	2892843	2.08
	BFTH	SW	181807	903276	534868	4675	1624626	1.17
		HW	98129	541017	320950	3205	963301	.69
	BFIH	SW	203775	825139	406004	7709	1442627	1.03
		HW	78984	472048	300709	4833	856574	.61
HS	THSP	SW	246604	2419325	1323097	7127	3996153	2.87
		HW	239413	2721223	1600141	8111	4568888	3.28
	INSP	SW	358887	3268793	1563929	11591	5203200	3.73
		HW	331541	3045943	1990966	13918	5382368	3.86
	THBF	SW	200170	641814	295317	973	1138274	.82
		HW	186555	743607	442909	1288	1374359	.99
	INBF	SW	296704	1028474	547649	3778	1876605	1.35
		HW	182016	1268588	630033	4225	2084862	1.50
H	TOHW	SW	484726	1272005	729322	3576	2489629	1.79
		HW	2019697	7992041	2769832	12334	12793904	9.18
	THIH	SW	186002	707517	258572	382	1152473	.83
		HW	553422	1973633	734633	813	3262501	2.34
	INHW	SW	331738	2022485	1360838	109832	3824893	2.74
		HW	831710	5719731	3139703	215438	9906582	7.11
	INTH	SW	104171	745390	531935	5286	1386782	.99
		HW	322629	1924950	1256950	12546	3517075	2.52

Table W5a. Gross merchantable volume (m3) by cover type, species class, and development stage on Private Woodlots.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	4281172	23766840	18465396	289194	46802602	33.57
	HW	502093	3291067	2547632	52521	6393313	4.59
	TOTAL	4783265	27057907	21013028	341715	53195915	38.16
SH	SW	1115123	8262727	4754469	34101	14166420	10.16
	HW	470543	4758787	2838809	20277	8088416	5.80
	TOTAL	1585666	13021514	7593278	54378	22254836	15.96
HS	SW	1102365	7358406	3729992	23469	12214232	8.76
	HW	939525	7779361	4664049	27542	13410477	9.62
	TOTAL	2041890	15137767	8394041	51011	25624709	18.38
H	SW	1106637	4747397	2880667	119076	8853777	6.35
	HW	3727458	17610355	7901118	241131	29480062	21.15
	TOTAL	4834095	22357752	10781785	360207	38333839	27.50
ALL COVER TYPES	SW	7605297	44135370	29830524	465840	82037031	58.85
	HW	5639619	33439570	17951608	341471	57372268	41.15
	TOTAL	13244916	77574940	47782132	807311	139409299	100.00
ALL COVER TYPES (%)	SW	5.46	31.66	21.40	.33	58.85	
	HW	4.05	23.99	12.88	.24	41.15	
	TOTAL	9.50	55.65	34.27	.58	100.00	

Table W6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on Private Woodlots.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	73	100	109	109	99
		HW	8	14	16	16	14
	BFSP	SW	62	91	92	76	87
		HW	14	21	23	37	21
	PINE	SW	96	134	120	138	121
		HW	7	9	13	14	9
	PSSP	SW	68	73	58	58	63
		HW	4	4	0	0	2
	OTSW	SW	83	117	128	98	120
		HW	10	13	14	9	13
SH	SPTH	SW	60	68	77	75	71
		HW	21	37	43	42	38
	SPIH	SW	59	68	70	75	67
		HW	25	41	44	43	40
	BFTH	SW	46	61	68	62	61
		HW	25	37	41	43	36
	BFIH	SW	53	63	64	66	62
		HW	20	36	48	41	37
HS	THSP	SW	44	49	52	54	50
		HW	43	56	63	62	57
	IHSP	SW	36	52	50	52	50
		HW	34	49	64	63	52
	THBF	SW	50	46	46	49	47
		HW	47	53	70	64	56
	IHBF	SW	50	47	52	52	49
		HW	30	58	59	59	54
H	TOHW	SW	19	15	24	25	18
		HW	79	94	90	86	90
	THIH	SW	26	27	27	11	26
		HW	77	74	75	23	75
	INHW	SW	18	26	35	53	28
		HW	45	74	80	103	72
	IHTH	SW	16	27	34	32	28
		HW	50	71	80	77	71

Table W7. Gross merchantable volume (m3) by species and development stage on Private Woodlots.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	3527017	20366650	12050294	195017	36138978	25.92
Balsam Fir	2012615	12420648	6143411	80184	20656858	14.82
Jack Pine	473498	1043234	243925	746	1761403	1.26
Red Pine	25374	104124	61178	6508	197184	.14
White Pine	354232	1602927	1075905	15320	3048384	2.19
Cedar	417049	5288930	8215677	150984	14072640	10.09
Hemlock	87959	1385220	1328651	10668	2812498	2.02
Larch	707553	1923637	711483	6413	3349086	2.40
TOTAL SOFTWOOD	7605297	44135370	29830524	465840	82037031	58.85
Red Maple	1036982	7689843	5284089	95044	14105958	10.12
Sugar Maple	868029	4407290	1814728	8747	7098794	5.09
Yellow Birch	318813	2115881	1440319	7823	3882836	2.79
Beech	773570	2375032	730874	3004	3882480	2.78
Other Tolerant	13928	230474	79233	467	324102	.23
Total Tolerant	3011322	16818520	9349243	115085	29294170	21.01
White Birch	737963	4365983	2830130	32940	7967016	5.71
Poplar	1767285	10544000	5208457	189419	17709161	12.70
Other Intolerant	123049	1711067	563778	4027	2401921	1.72
Total Intolerant	2628297	16621050	8602365	226386	28078098	20.14
TOTAL HARDWOOD	5639619	33439570	17951608	341471	57372268	41.15
TOTAL ALL SPECIES	13244916	77574940	47782132	807311	139409299	100.00
PERCENT	9.50	55.65	34.27	.58	100.00	

Table W7a. Gross merchantable volume (m3) by marketing board, species class and development stage on Private Woodlots.

MARKETING BOARD	SPECIES CLASS	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
NS	Softwood	2395827	5996024	3490725	68724	11951300	8.57
	Hardwood	2320957	4592533	1570269	14432	8498191	6.10
	Total	4716784	10588557	5060994	83156	20449491	14.67
MAD	Softwood	300624	1344986	478384	1457	2125451	1.52
	Hardwood	685694	2296629	668287	1347	3651957	2.62
	Total	986318	3641615	1146671	2804	5777408	4.14
C-V	Softwood	278298	3567536	4189097	35272	8070203	5.79
	Hardwood	746574	4539952	2252226	16335	7555087	5.42
	Total	1024872	8107488	6441323	51607	15625290	11.21
NOR	Softwood	1318920	3291748	2993868	22980	7627516	5.47
	Hardwood	661591	1334743	884700	11767	2892801	2.08
	Total	1980511	4626491	3878568	34747	10520317	7.55
YSC	Softwood	512981	9892487	8030191	149104	18584763	13.33
	Hardwood	305910	7454258	4340855	55893	12156916	8.72
	Total	818891	17346745	12371046	204997	30741679	22.05
SENB	Softwood	1766909	9582071	3548153	53497	14950630	10.72
	Hardwood	606231	5205867	1846621	59802	7718521	5.54
	Total	2373140	14787938	5394774	113299	22669151	16.26
SNB	Softwood	1031738	10460518	7100106	134806	18727168	13.43
	Hardwood	312662	8015588	6388650	181895	14898795	10.69
	Total	1344400	18476106	13488756	316701	33625963	24.12
ALL MARKETING BOARDS	Softwood	7605297	44135370	29830524	465840	82037031	58.85
	Hardwood	5639619	33439570	17951608	341471	57372268	41.15
	Total	13244916	77574940	47782132	807311	139409299	100.00

Figure W4a. Total volume by species class and development.

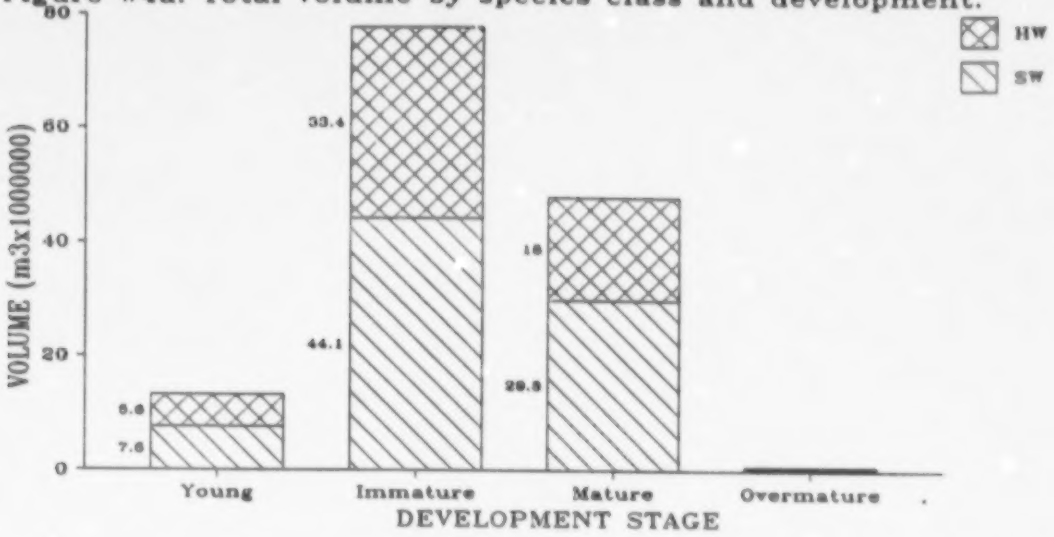


Figure W4b. Volume per ha by species class and development.

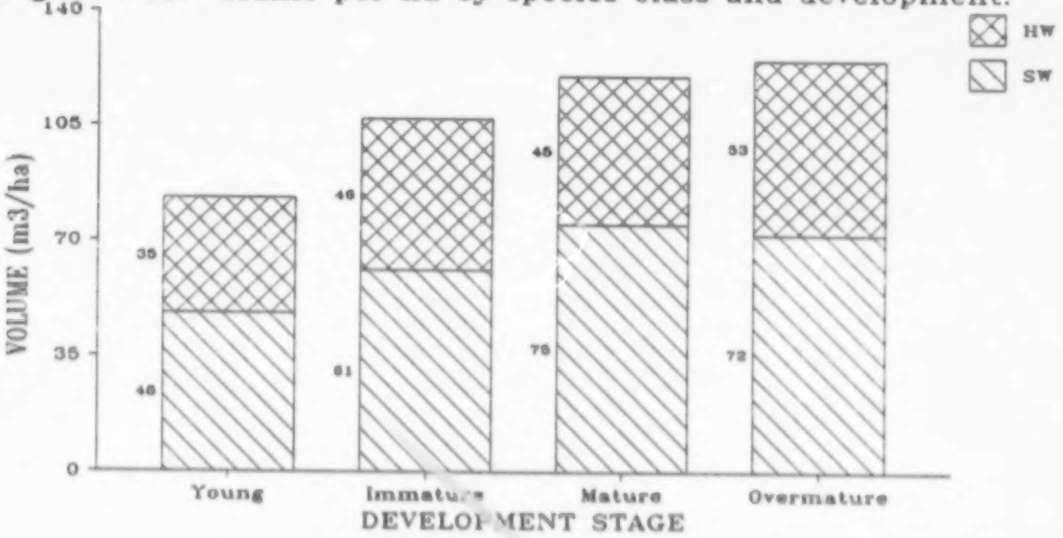


Figure W4c. Total area (hax1000) by development stage.

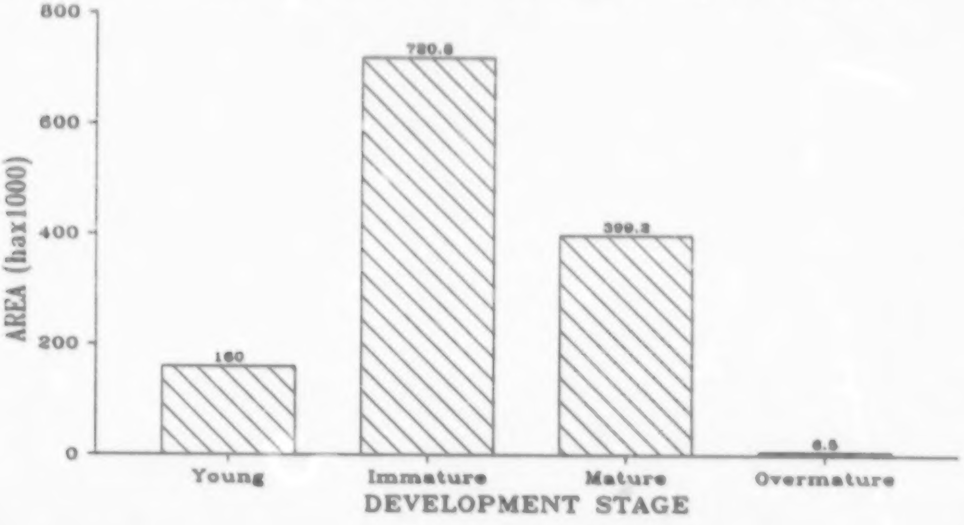


Table W8. Gross merchantable volume (m3) by species and DBH class (cm) on Private Woodlots.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	7546223	17591549	11001206	36138978	25.92
Balsam Fir	6927357	11108074	2621427	20656858	14.82
Jack Pine	390694	977314	393395	1761403	1.26
Red Pine	6789	55982	134413	197184	.14
White Pine	155486	583018	2309880	3048384	2.19
Cedar	2466479	7290844	4315317	14072640	10.09
Hemlock	185055	824705	1802738	2812498	2.02
Larch	581317	1554997	1212772	3349086	2.40
TOTAL SOFTWOOD	18259400	39986483	23791148	82037031	58.85
Red Maple	4546021	6428786	3131151	14105958	10.12
Sugar Maple	1317001	2765118	3016675	7098794	5.09
Yellow Birch	614267	1536307	1732262	3882836	2.79
Beech	911985	1748944	1221551	3882480	2.78
Other Tolerant	115867	136998	71237	324102	.23
Total Tolerant	7505141	12616153	9172876	29294170	21.01
White Birch	2441230	3896931	1628855	7967016	5.71
Poplar	2843838	8270551	6594772	17709161	12.70
Other Intolerant	1201367	781089	419465	2401921	1.72
Total Intolerant	6486435	12948571	8643092	28078098	20.14
TOTAL HARDWOOD	13991576	25564724	17815968	57372268	41.15
TOTAL ALL SPECIES	32250976	65551207	41607116	139409299	100.00
PERCENT	23.13	47.02	29.85	100.00	

Figure W5. Volume by species class and DBH class.

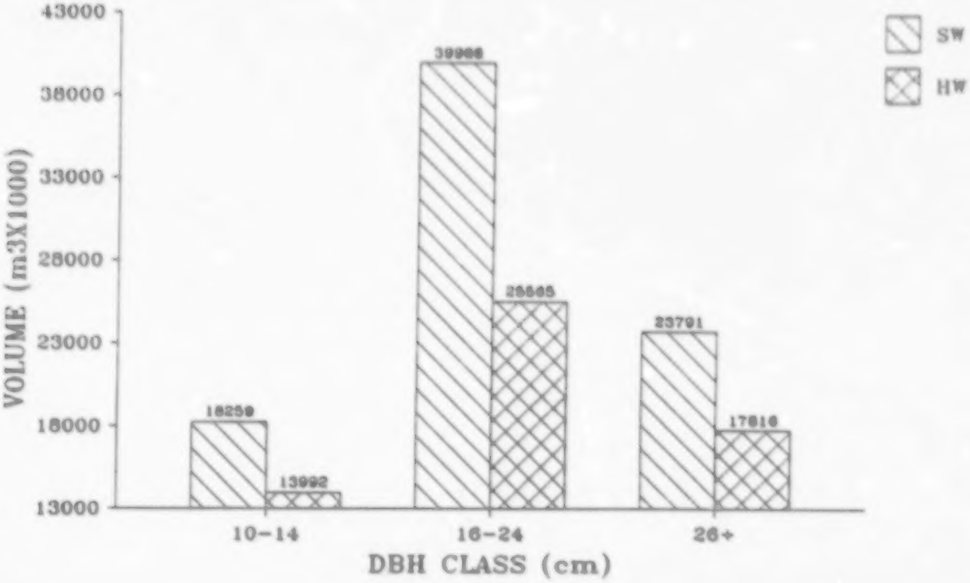


Table W8a. Gross merchantable volume (m3) by marketing board, species class and DBH class (cm) on Private Woodlots.

MARKETING BOARD	SPECIES CLASS	DBH CLASS 10-14	DBH CLASS 16-24	DBH CLASS 26+	TOTAL	PERCENT
NS	Softwood	3830216	6059555	2061529	11951300	8.57
	Hardwood	2522747	3728614	2246830	8498191	6.10
	Total	6352963	9788169	4308359	20449491	14.67
MAD	Softwood	499720	1116514	509217	2125451	1.52
	Hardwood	810021	1702435	1139501	3651957	2.62
	Total	1309741	2818949	1648718	5777408	4.14
C-V	Softwood	1407093	3999252	2663858	8070203	5.79
	Hardwood	1345011	3387476	2822600	7555087	5.42
	Total	2752104	7386728	5486458	15625290	11.21
NOR	Softwood	1877371	3684808	2065337	7627516	5.47
	Hardwood	677790	1208741	1006270	2892801	2.08
	Total	2555161	4893549	3071607	10520317	7.55
YSC	Softwood	3352527	8581551	6650685	18584763	13.33
	Hardwood	2612289	5274128	4270499	12156916	8.72
	Total	5964816	13855679	10921184	30741679	22.05
SENB	Softwood	3607999	7562904	3779727	14950630	10.72
	Hardwood	2365439	3624296	1728786	7718521	5.54
	Total	5973438	11187200	5508513	22669151	16.26
SNB	Softwood	3684474	8981899	6060795	18727168	13.43
	Hardwood	3658279	6639034	4601482	14898795	10.69
	Total	7342753	15620933	10662277	33625963	24.12
ALL MARKETING BOARDS	Softwood	18259400	39986483	23791148	82037031	58.85
	Hardwood	13991576	25564724	17815968	57372268	41.15
	Total	32250976	65551207	41607116	139409299	100.00

Table W9a. Distribution of FDS plots in the Immature-Young development stage by FUNA and marketing board on Private Woodlots.

FUNA	FOREST PRODUCTS MARKETING BOARD							TOTAL
	NS	MAD	C-V	NOR	YSC	SENB	SNB	
SPBF	27	4	5	43	3	35	14	131
BFSP	10	2	0	14	4	5	12	47
PINE	6	0	0	7	0	12	1	26
PSSP	0	0	0	0	0	1	0	1
OTSW	4	4	2	10	2	11	2	35
SPTH	3	2	0	8	0	11	0	24
SPIH	7	6	1	16	3	11	1	45
BFTH	8	5	0	7	0	6	0	26
BFIH	4	3	0	8	2	1	5	23
THSP	8	4	1	5	2	10	0	30
IHSP	5	11	6	12	3	4	2	43
THBF	12	6	0	6	2	8	1	35
IHBF	8	6	1	6	2	4	7	34
TOHW	32	42	42	3	8	4	3	134
THIH	12	9	4	4	3	3	3	38
IHHW	16	25	8	16	1	7	6	79
IHTH	12	9	0	9	2	2	0	34
TOTAL	174	138	70	174	37	135	57	785

Table W9b. Distribution of FDS plots in the Immature-Old development stage by FUNA and marketing board on Private Woodlots.

FUNA	FOREST PRODUCTS MARKETING BOARD							TOTAL
	NS	MAD	C-V	NOR	YSC	SENB	SNB	
SPBF	55	12	44	108	87	191	242	739
BFSP	27	13	12	12	26	16	30	136
PINE	9	0	0	2	8	13	17	49
PSSP	0	0	0	2	2	4	0	8
OTSW	17	15	19	10	34	13	18	126
SPTH	11	8	22	26	61	50	37	215
SPIH	17	9	21	17	30	29	64	187
BFTH	18	17	8	19	16	24	15	117
BFIH	10	9	7	16	22	8	25	97
THSP	10	17	30	16	48	49	24	194
IHSP	24	36	37	13	47	54	59	270
THBF	16	34	12	10	8	10	15	105
IHBF	24	22	15	14	10	11	24	120
TOHW	31	49	86	3	69	13	39	290
THIN	9	25	16	4	23	14	30	121
INHW	56	40	38	21	36	82	49	322
INTH	7	34	17	7	15	22	40	142
TOTAL	341	340	384	300	542	603	728	3238

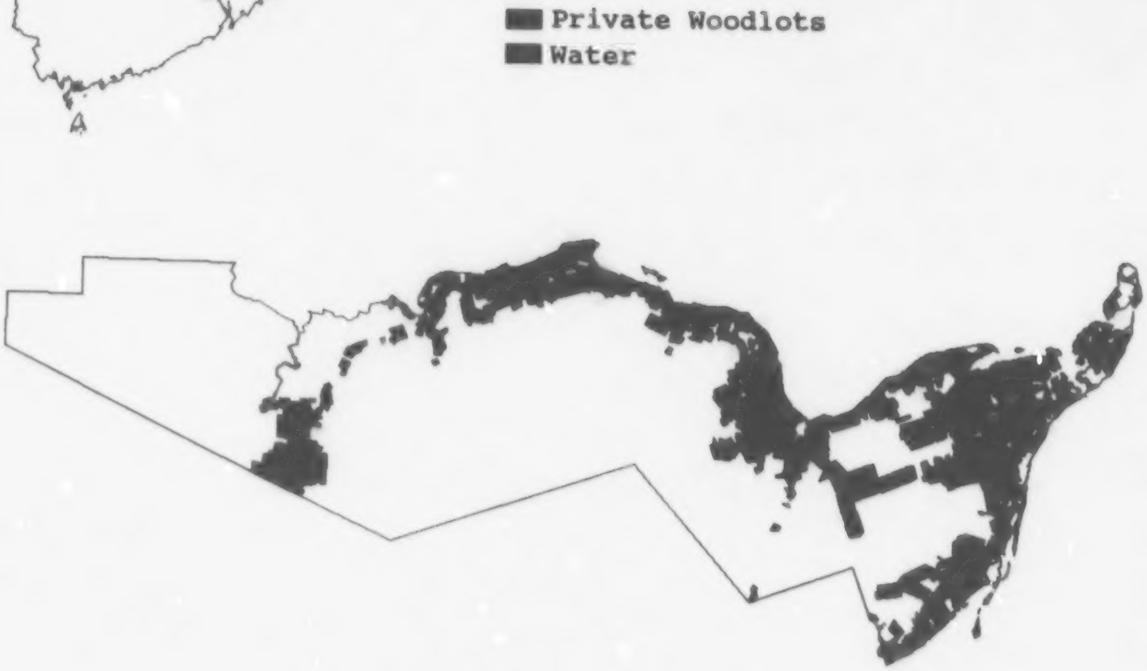
Table W9c. Distribution of FDS plots in the Mature development stage by FUNA and marketing board on Private Woodlots.

FUNA	FOREST PRODUCTS MARKETING BOARD							TOTAL
	NS	MAD	C-V	NOR	YSC	SENB	SNB	
SPBF	24	4	24	40	42	53	86	273
BFSP	42	5	21	24	13	10	3	118
PINE	0	0	0	8	1	6	4	19
PSSP	3	0	1	0	3	5	0	12
OTSW	33	7	70	18	47	13	13	201
SPTH	4	2	18	21	34	21	12	112
SPIH	8	9	13	11	18	8	31	98
BFTH	12	7	11	8	5	6	3	52
BFIH	11	9	8	4	4	2	4	42
THSP	2	7	16	13	28	21	15	102
IHSP	8	9	19	10	20	16	54	136
THBF	10	8	8	3	4	4	3	40
IHBF	15	15	17	5	3	7	11	73
TOHW	12	26	38	4	26	7	14	127
THIH	1	1	6	1	11	3	13	36
INHW	15	25	27	5	17	19	39	147
INTH	2	4	9	1	5	14	22	57
TOTAL	202	138	306	176	281	215	327	1645

Table W9d. Distribution of FDS plots in the Overmature development stage by FUNA and marketing board on Private Woodlots.

FUNA	FOREST PRODUCT MARKETING BOARD							TOTAL
	NS	MAD	C-V	NOR	YSC	SENB	SNB	
SPBF	0	0	0	0	2	0	0	2
BFSP	1	0	1	0	3	1	0	6
PINE	0	0	0	0	0	0	0	0
PSSP	0	0	0	0	0	0	0	0
OTSW	1	0	0	0	3	0	0	4
SPTH	0	0	0	0	0	0	0	0
SPIH	0	0	0	0	0	0	0	0
BFTH	0	0	0	0	0	0	0	0
BFIH	0	0	0	0	0	0	0	0
THSP	0	0	0	0	0	0	0	0
IHSP	0	0	0	0	0	0	0	0
THBF	0	0	0	0	0	0	0	0
IHBF	0	0	0	0	0	0	0	0
TOHW	0	0	0	0	0	0	0	0
THIH	0	0	0	0	0	0	0	0
INHW	0	0	0	0	0	2	4	6
IHTH	0	0	0	0	0	0	1	1
TOTAL	2	0	1	0	8	3	5	19

NORTH SHORE
FOREST PRODUCTS MARKETING BOARD



The North Shore Forest Products Marketing Board encompasses private woodlots within Restigouche, and Gloucester Counties and the Alnwick Parish of Northumberland County. Approximately 39 percent of the private woodlots are covered by a coniferous forest, predominantly of spruce and balsam fir, 35 percent is deciduous and 26 percent is covered by a mixed-wood forest. Approximately 37 percent of productive forest land is in the immature-old development stage. Spruce and balsam fir make up over 40 percent of the total merchantable volume on the woodlots. Other predominant species by merchantable volume include poplar, cedar, red maple, white birch, sugar maple, beech, yellow birch, jack and white pine. Approximately 48 percent of the merchantable volume is in the 16-24 cm DBH size class, 21 percent is in the 26+ cm DBH range and 31 percent is in the 10-14 cm DBH class.

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Table NS4. Area (ha) by cover type, forest unit and development stage on North Shore Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	DEVELOPMENT Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	6224	12726	19933	4831	104	43818	19.72
	BFSP	3160	1649	6911	7431	79	19230	8.65
	PINE	508	1818	2148	98	0	4572	2.06
	PSSP	26	71	730	1048	28	1903	.86
	OTSW	236	1551	4249	10276	316	16628	7.48
	TOTAL	10154	17815	33971	23684	527	86151	38.77
SH	SPTH	146	856	1928	705	12	3647	1.64
	SPIH	635	2169	4564	990	5	8363	3.76
	BFTH	347	943	3268	1707	24	6289	2.83
	BFIH	706	821	2883	1538	9	5957	2.68
	TOTAL	1834	4789	12643	4940	50	24256	10.91
HS	THSP	184	1331	2117	537	23	4192	1.89
	IHSP	1143	2989	7702	1510	17	13361	6.01
	THBF	420	1682	3058	1190	4	6354	2.86
	IHBF	1383	1465	5790	2254	13	10905	4.91
	TOTAL	3130	7467	18667	5491	57	34812	15.67
H	TOHW	2345	11078	9345	1928	7	24703	11.11
	THIH	1701	3863	1965	224	0	7753	3.49
	INHW	6260	8161	19356	3637	0	37414	16.84
	INTH	1936	2598	2226	368	0	7128	3.21
	TOTAL	12242	25700	32892	6157	7	76998	34.65
ALL COVER TYPES	TOTAL	27360	55771	98173	40272	641	222217	100.00
ALL COVER TYPES	PERCENT	12.31	25.10	44.18	18.12	.29	100.00	

Figure NS3. Area by cover type and development stage.

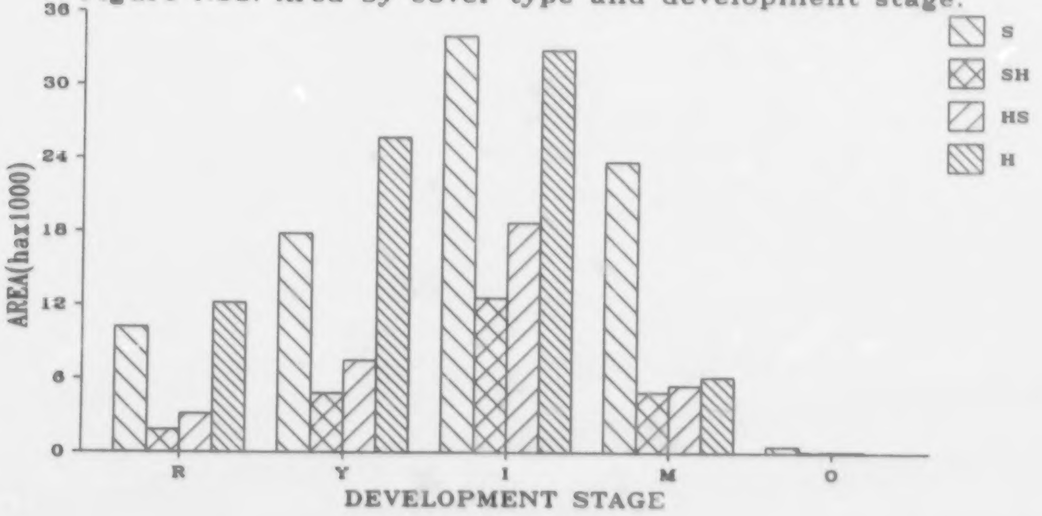


Table NS5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the North Shore Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	883403	1836945	577675	12516	3310539	16.19
		HW	103679	222678	55985	1210	383552	1.88
	BFSP	SW	117072	684978	725296	7739	1535085	7.51
		HW	35885	135580	213745	2278	387488	1.89
	PINE	SW	137259	264203	10793	0	412255	2.02
		HW	23331	5965	1091	0	30387	.15
	PSSP	SW	7632	78474	47858	1278	135242	.66
		HW	425	4378	0	0	4803	.02
	OTSW	SW	107265	597253	1329026	40865	2074409	10.14
		HW	32515	44681	118015	3625	198836	.97
SH	SPTH	SW	37092	134781	30842	525	203240	.99
		HW	17688	63271	25731	438	107128	.52
	SPIH	SW	132306	292847	103330	519	529002	2.59
		HW	96982	228704	45785	228	371699	1.82
	BFTH	SW	37011	202613	99004	1389	340017	1.66
		HW	33709	118916	104977	1474	259076	1.27
	BFIH	SW	44743	170094	111572	650	327059	1.60
		HW	23396	111857	96612	563	232428	1.14
HS	THSP	SW	46085	83228	31436	1466	162235	.79
		HW	54402	76345	29788	1386	161921	.79
	IHSP	SW	84354	374155	76206	884	535599	2.62
		HW	80838	364009	115678	1342	561867	2.75
	THBF	SW	78070	129963	48314	160	256507	1.25
		HW	74427	161880	90321	300	326928	1.60
	IHBF	SW	72331	267544	100435	590	440900	2.16
		HW	51455	325928	158457	929	536769	2.62
H	TOHW	SW	318310	176343	40005	143	534801	2.62
		HW	749372	823446	182676	659	1756153	8.59
	THIH	SW	125846	56765	5311	0	187922	.92
		HW	318224	132963	19429	0	470616	2.30
	INHW	SW	126131	538672	138444	0	803247	3.93
		HW	456410	1646640	284951	0	2388001	11.68
	IHTH	SW	40917	107166	15158	0	163241	.80
		HW	168219	125292	27028	0	320539	1.57

Table NS5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the North Shore Forest Products Marketing Board Zone.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SW	1252631	3461853	2690648	62398	7467530	36.52
	HW	195835	413282	388836	7113	1005066	4.91
	TOTAL	1448466	3875135	3079484	69511	8472596	41.43
SH	SW	251152	800335	344748	3083	1399318	6.84
	HW	171775	522748	273105	2703	970331	4.75
	TOTAL	422927	1323083	617853	5786	2369649	11.59
HS	SW	280840	854890	256411	3100	1395241	6.82
	HW	261122	928162	394244	3957	1587485	7.76
	TOTAL	541962	1783052	650655	7057	2982726	14.59
H	SW	611204	878946	198918	143	1689211	8.26
	HW	1692225	2728341	514084	659	4935309	24.13
	TOTAL	2303429	3607287	713002	802	6624520	32.39
ALL COVER TYPES	SW	2395827	5996024	3490725	68724	11951300	58.44
	HW	2320957	4592533	1570269	14432	8498191	41.56
	TOTAL	4716784	10588557	5060994	83156	20449491	100.00
ALL COVER TYPES (%)	SW	11.72	29.32	17.07	.34	58.44	
	HW	11.35	22.46	7.68	.07	41.56	
	TOTAL	23.07	51.78	24.75	.41	100.00	

Table NS6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the North Shore Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	69	92	120	120	88
		HW	8	11	12	12	10
	BFSP	SW	71	99	98	98	96
		HW	22	20	29	29	24
	PINE	SW	76	123	110	0	101
		HW	13	3	11	0	7
	PSSP	SW	107	107	46	46	72
		HW	6	6	0	0	3
	OTSW	SW	69	141	129	129	127
		HW	21	11	11	11	12
SH	SPTH	SW	43	70	44	44	58
		HW	21	33	36	37	31
	SPIH	SW	61	64	104	104	68
		HW	45	50	46	46	48
	BFTH	SW	39	62	58	58	57
		HW	36	36	61	61	44
	BFIH	SW	54	59	73	72	62
		HW	28	39	63	63	44
HS	THSP	SW	35	39	59	64	40
		HW	41	36	55	60	40
	IHSP	SW	28	49	50	52	44
		HW	27	47	77	79	46
	THBF	SW	46	42	41	40	43
		HW	44	53	76	75	55
	IHBF	SW	49	46	45	45	46
		HW	35	56	70	71	56
H	TOHW	SW	29	19	21	20	24
		HW	68	88	95	94	79
	THIH	SW	33	29	24	0	31
		HW	82	68	87	0	78
	INHW	SW	15	28	38	0	26
		HW	56	85	78	0	77
	IHTH	SW	16	48	41	0	31
		HW	65	56	73	0	62

Table NS7. Gross merchantable volume (m3) by species and development stage on the North Shore Forest Products Marketing Board Zone.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	1034511	2296290	1128712	20585	4480098	21.91
Balsam Fir	887258	2010278	859734	11534	3768804	18.43
Jack Pine	118922	206086	3807	78	328893	1.61
Red Pine	7569	1473	3422	13	12477	.06
White Pine	98320	147237	81851	878	328286	1.61
Cedar	122157	1143788	1277313	32051	2575309	12.59
Hemlock	14029	41154	12061	166	67410	.33
Larch	113061	149718	123825	3419	390023	1.91
TOTAL SOFTWOOD	2395827	5996024	3490725	68724	11951300	58.44
Red Maple	425974	890458	377844	4144	1698420	8.31
Sugar Maple	299196	518640	188902	1498	1008236	4.93
Yellow Birch	166654	247878	135983	1384	551899	2.70
Beech	297318	264495	50925	318	613056	3.00
Other Tolerant	0	0	0	0	0	.00
Total Tolerant	1189142	1921471	753654	7344	3871611	18.93
White Birch	267595	590725	223371	3156	1084847	5.31
Poplar	852642	2029124	565226	3632	3450624	16.87
Other Intolerant	11578	51213	28018	300	91109	.45
Total Intolerant	1131815	2671062	816615	7088	4626580	22.62
TOTAL HARDWOOD	2320957	4592533	1570269	14432	8498191	41.56
TOTAL ALL SPECIES	4716784	10588557	5060994	83156	20449491	100.00
PERCENT	23.07	51.78	24.75	.41	100.00	

Figure NS4a. Total volume by species class and development.

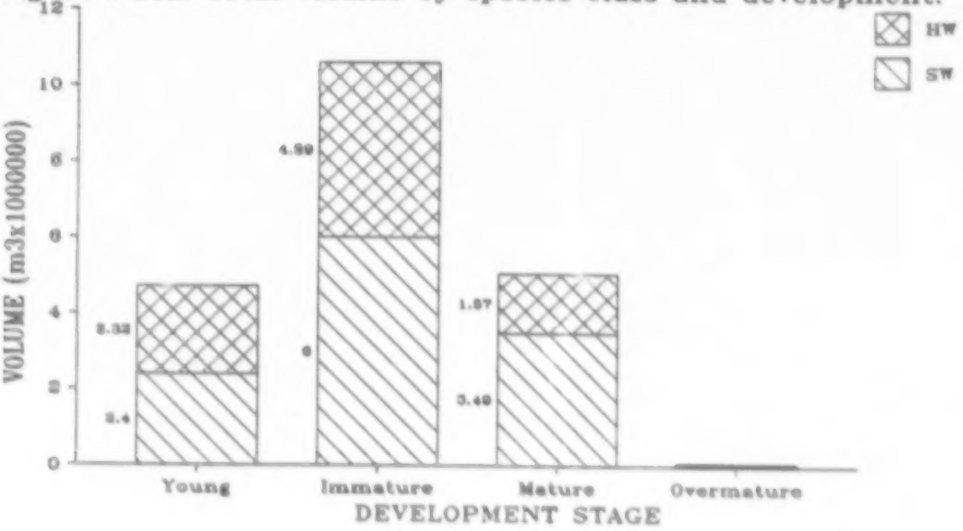


Figure NS4b. Volume per ha by species class and development.

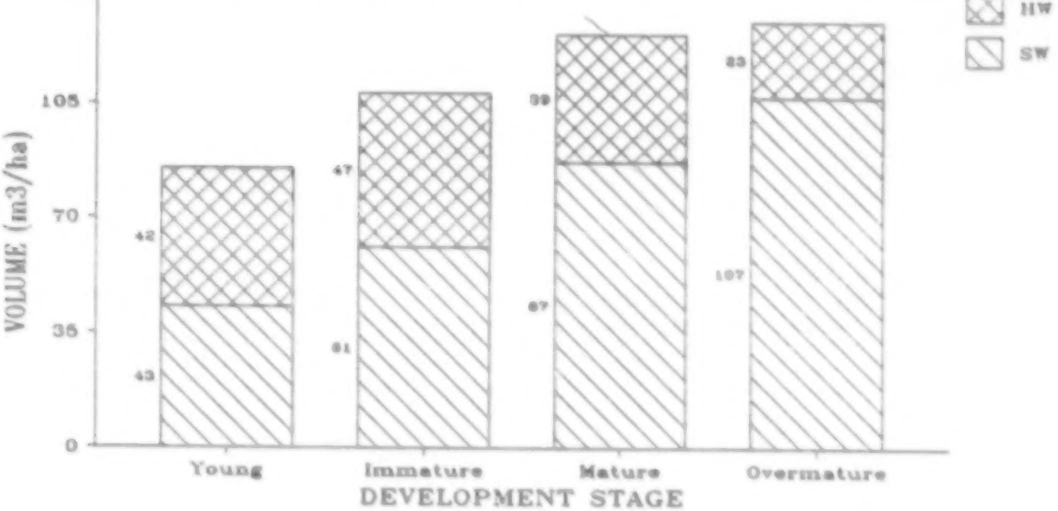


Figure NS4c. Total area (hax1000) by development stage.

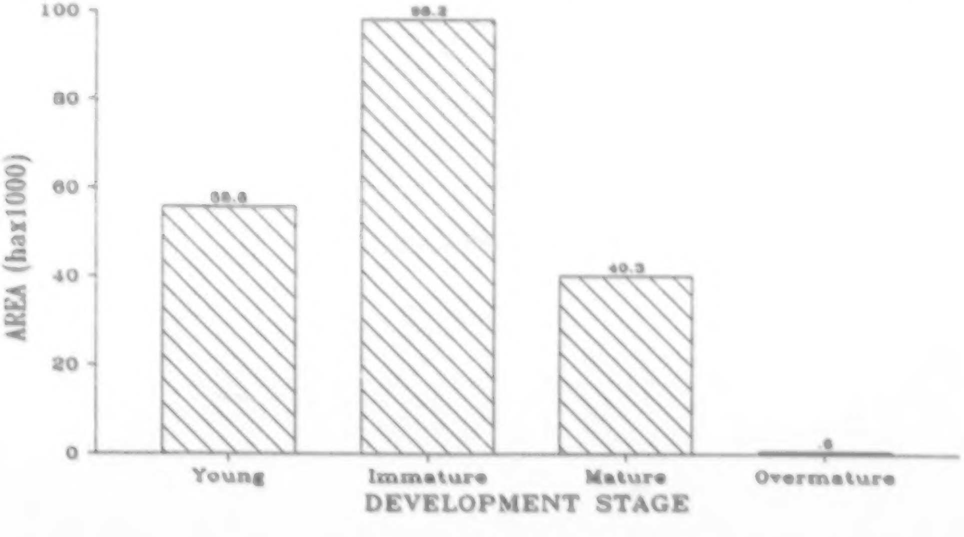
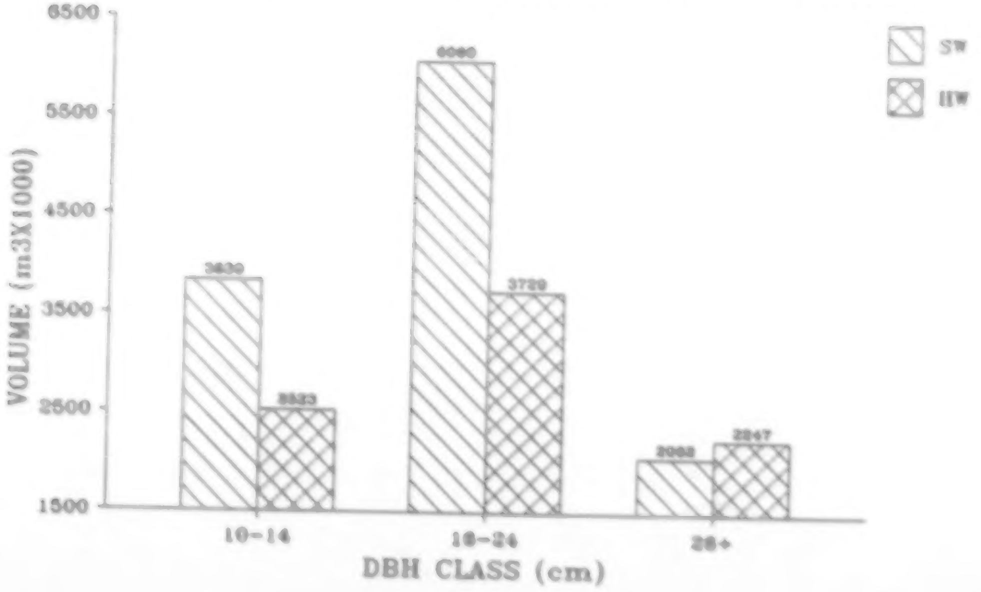


Table NS8. Gross merchantable volume (m3) by species and DBH class (cm) on the North Shore Forest Products Marketing Board Zone.

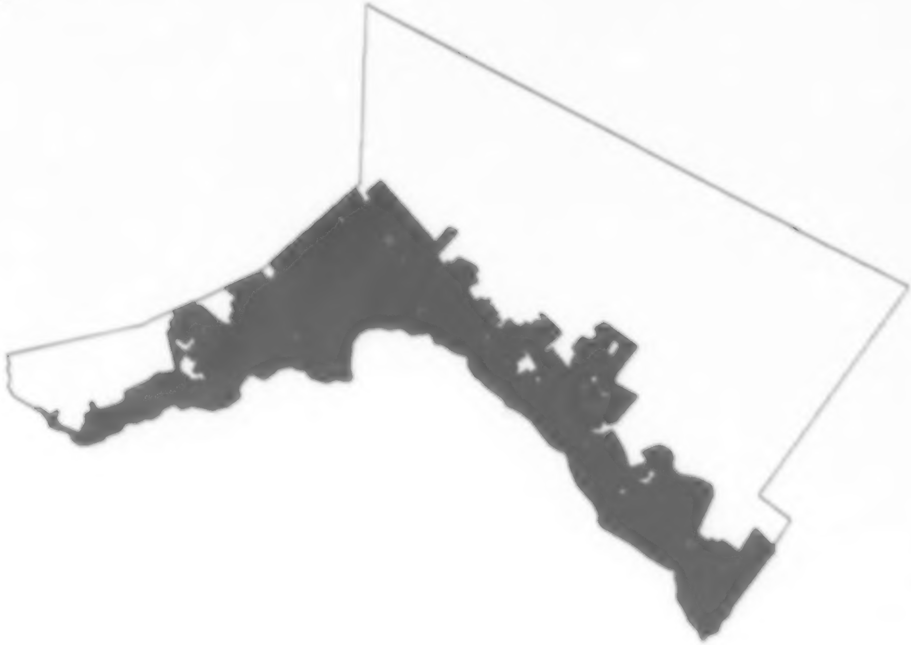
SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	1543442	2261658	674998	4480098	21.91
Balsam Fir	1428640	2018063	322101	3768804	18.43
Jack Pine	123083	165455	40355	328893	1.61
Red Pine	0	12477	0	12477	.06
White Pine	15632	64485	248169	328286	1.61
Cedar	634111	1335724	605474	2575309	12.59
Hemlock	3966	11896	51548	67410	.33
Larch	81342	189797	118884	390023	1.91
TOTAL SOFTWOOD	3830216	6059555	2061529	11951300	58.44
Red Maple	762556	676921	258943	1698420	8.31
Sugar Maple	223692	377684	406860	1008236	4.93
Yellow Birch	105795	213354	232750	551899	2.70
Beech	162229	268106	182721	613056	3.00
Other Tolerant	0	0	0	0	.00
Total Tolerant	1254272	1536065	1081274	3871611	18.93
White Birch	442963	504484	137400	1084847	5.31
Poplar	791768	1657695	1001161	3450624	16.87
Other Intolerant	33744	30370	26995	91109	.45
Total Intolerant	1268475	2192549	1165556	4626580	22.62
TOTAL HARDWOOD	2522747	3728614	2246830	8498191	41.56
TOTAL ALL SPECIES	6352963	9788169	4308359	20449491	100.00
PERCENT	31.07	47.87	21.07	100.00	

Figure NS5. Volume by species class and DBH class.



MADAWASKA
FOREST PRODUCTS MARKETING BOARD

■ Private Woodlots
■ Water



The Madawaska Forest Products Marketing Board encompasses private woodlots within Madawaska County and the Drummond Parish of Victoria County. Approximately 32 percent of the private woodlots are covered by a deciduous forest, 32 percent is mixed-wood and 11 percent is covered by a coniferous forest. Approximately 33 percent of productive forest land is in the immature-old development stage. Poplar makes up over 24 percent of the total merchantable volume on the woodlots. Other predominant species by merchantable volume include balsam fir, sugar maple, spruce, cedar, red maple, beech, white birch, yellow birch, and larch. Approximately 49 percent of the merchantable volume is in the 16-24 cm DBH size class, 28 percent is in the 26+ cm DBH range and 23 percent is in the 10-14 cm DBH class.

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Table MAD4. Area (ha) by cover type, forest unit and development stage on the Madawaska Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	864	608	929	327	0	2728	4.49
	BFSP	90	170	908	574	4	1746	2.88
	PINE	4	0	0	0	0	4	.01
	PSSP	0	8	34	8	0	50	.08
	OTSW	98	341	1154	514	0	2107	3.47
	TOTAL	1056	1127	3025	1423	4	6635	10.93
SH	SPTH	110	108	559	162	0	939	1.55
	SPIH	174	225	986	275	0	1660	2.73
	BFTH	20	156	1484	341	4	2005	3.30
	BFIH	26	105	1013	380	3	1527	2.52
	TOTAL	330	594	4042	1158	7	6131	10.10
HS	THSP	126	220	982	408	0	1736	2.86
	IHSP	859	1224	2107	505	4	4699	7.74
	THBF	40	311	2200	716	11	3278	5.40
	IHBF	117	514	1970	1114	0	3715	6.12
	TOTAL	1142	2269	7259	2743	15	13428	22.12
H	TOHW	956	3808	9156	2113	0	16033	26.41
	THIH	656	600	2214	84	0	3554	5.86
	INHW	2110	1743	4157	1831	0	9841	16.21
	INTH	796	943	2922	417	0	5078	8.37
	TOTAL	4518	7094	18449	4445	0	34506	56.85
ALL COVER TYPES	TOTAL	7046	11084	32775	9769	26	60700	100.00
ALL COVER TYPES	TOTAL	11.61	18.26	54.00	16.09	.04	100.00	

Figure MAD3. Area by cover type and development stage.

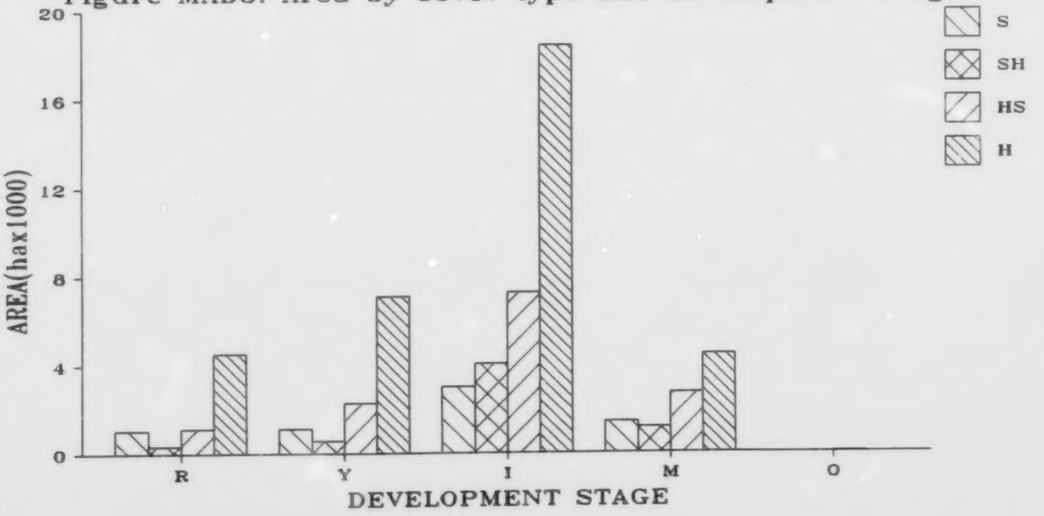


Table MAD5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Madawaska Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	37544	118678	37441	0	193663	3.35
		HW	1976	14010	6703	0	22689	.39
	BFSP	SW	10434	70402	46262	320	127418	2.21
		HW	3444	16411	8378	56	28289	.49
	PINE	SW	0	0	0	0	0	.00
		HW	0	0	0	0	0	.00
	PSSP	SW	[illegible]	3655	395	0	4910	.08
		HW	[illegible]	204	0	0	252	.00
	OTSW	SW	41175	121630	64689	0	227494	3.94
		HW	170	9384	2349	0	11903	.21
SH	SPTH	SW	5913	42063	13606	0	61582	1.07
		HW	2500	31232	6878	0	40610	.70
	SPIH	SW	16012	68471	22364	0	106847	1.85
		HW	4161	51380	14298	0	69839	1.21
	BFTH	SW	6083	101345	23041	270	130739	2.26
		HW	5209	65903	13491	156	84759	1.47
	BFIH	SW	3990	65842	21954	172	91958	1.59
		HW	2765	31964	15747	122	50598	.88
HS	THSP	SW	4785	47885	15911	0	68581	1.19
		HW	13035	60995	24010	0	98040	1.70
	IHSP	SW	50850	103709	15204	119	169882	2.94
		HW	50516	120155	33328	262	204261	3.54
	THBF	SW	18815	110193	37500	576	167084	2.89
		HW	25241	118926	49133	751	194051	3.36
	IHBF	SW	24843	104318	61416	0	190577	3.30
		HW	17218	144434	78423	0	240075	4.16
H	TOHW	SW	30100	148923	34375	0	213398	3.69
		HW	354413	877478	215117	0	1447008	25.05
	THIH	SW	5934	50654	1992	0	58580	1.01
		HW	35460	164009	7285	0	206754	3.58
	INHW	SW	27885	126889	67744	0	222518	3.85
		HW	103950	358018	171672	0	633640	10.97
	IHTH	SW	15401	60329	14490	0	90220	1.56
		HW	65588	232126	21475	0	319189	5.52

Table MAD5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Madawaska Forest Products Marketing Board Zone.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	90013	314365	148787	320	553485	9.58
	HW	5638	40009	17430	56	63133	1.09
	TOTAL	95651	354374	166217	376	616618	10.67
SH	SW	31998	277721	80965	442	391126	6.77
	HW	14635	180479	50414	278	245806	4.25
	TOTAL	46633	458200	131379	720	636932	11.02
HS	SW	99293	366105	130031	695	596124	10.32
	HW	106010	444510	184894	1013	736427	12.75
	TOTAL	205303	810615	314925	1708	1332551	23.06
H	SW	79320	386795	118601	0	584716	10.12
	HW	559411	1631631	415549	0	2606591	45.12
	TOTAL	638731	2018426	534150	0	3191307	55.24
ALL COVER TYPES	SW	300624	1344986	478384	1457	2125451	36.79
	HW	685694	2296629	668287	1347	3651957	63.21
	TOTAL	986318	3641615	1146671	2804	5777408	100.00
ALL COVER TYPES (%)	SW	5.20	23.28	8.28	.03	36.79	
	HW	11.87	39.75	11.57	.02	63.21	
	TOTAL	17.07	63.03	19.85	.05	100.00	

Table MAD6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Madawaska Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	62	128	114	0	104
		HW	3	15	20	0	12
	BFSP	SW	61	78	81	80	77
		HW	20	18	15	14	17
	PINE	SW	0	0	0	0	0
		HW	0	0	0	0	0
	PSSP	SW	108	108	49	0	98
		HW	6	6	0	0	5
	OTSW	SW	121	105	126	0	113
		HW	0	8	5	0	6
SH	SPTH	SW	55	75	84	0	74
		HW	23	56	42	0	49
	SPIH	SW	71	69	81	0	72
		HW	18	52	52	0	47
	BFTH	SW	39	68	68	68	66
		HW	33	44	40	39	43
	BFIH	SW	38	65	58	57	61
		HW	26	32	41	41	34
HS	THSP	SW	22	49	39	0	43
		HW	59	62	59	0	61
	IHSP	SW	42	49	30	30	44
		HW	41	57	66	66	53
	THBF	SW	60	50	52	52	52
		HW	81	54	69	68	60
	IHBF	SW	48	53	55	0	53
		HW	33	73	70	0	67
H	TOHW	SW	8	16	16	0	14
		HW	93	96	102	0	96
	THIH	SW	10	23	24	0	20
		HW	59	74	87	0	71
	INHW	SW	16	31	37	0	29
		HW	60	86	94	0	82
	IHTH	SW	16	21	35	0	21
		HW	70	79	51	0	75

Table MAD7. Gross merchantable volume (m3) by species and development stage on the Madawaska Forest Products Marketing Board Zone.

SPECIES	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
Spruce	107045	442411	142991	391	692838	11.99
Balsam Fir	107429	568414	197732	778	874353	15.13
Jack Pine	54	0	391	0	445	.01
Red Pine	27	0	0	0	27	.00
White Pine	4590	4723	2434	10	11757	.20
Cedar	43715	275139	113972	253	433079	7.50
Hemlock	185	0	620	0	805	.01
Larch	37579	54299	20244	25	112147	1.94
TOTAL SOFTWOOD	300624	1344986	478384	1457	2125451	36.79
Red Maple	71086	241893	78635	280	391894	6.78
Sugar Maple	161407	549547	121197	270	832421	14.41
Yellow Birch	27269	154713	75274	263	257519	4.46
Beech	87192	237845	55350	20	380407	6.58
Other Tolerant	149	652	355	1	1157	.02
Total Tolerant	347103	1184650	330811	834	1863398	32.25
White Birch	82802	219678	63624	144	366248	6.34
Poplar	252279	876969	265515	348	1395111	24.15
Other Intolerant	3510	15332	8337	21	27200	.47
Total Intolerant	338591	1111979	337476	513	1788559	30.96
TOTAL HARDWOOD	685694	2296629	668287	1347	3651957	63.21
TOTAL ALL SPECIES	986318	3641615	1146671	2804	5777408	100.00
PERCENT	17.07	63.03	19.85	.05	100.00	

Figure MAD4a. Total volume by species class and development.

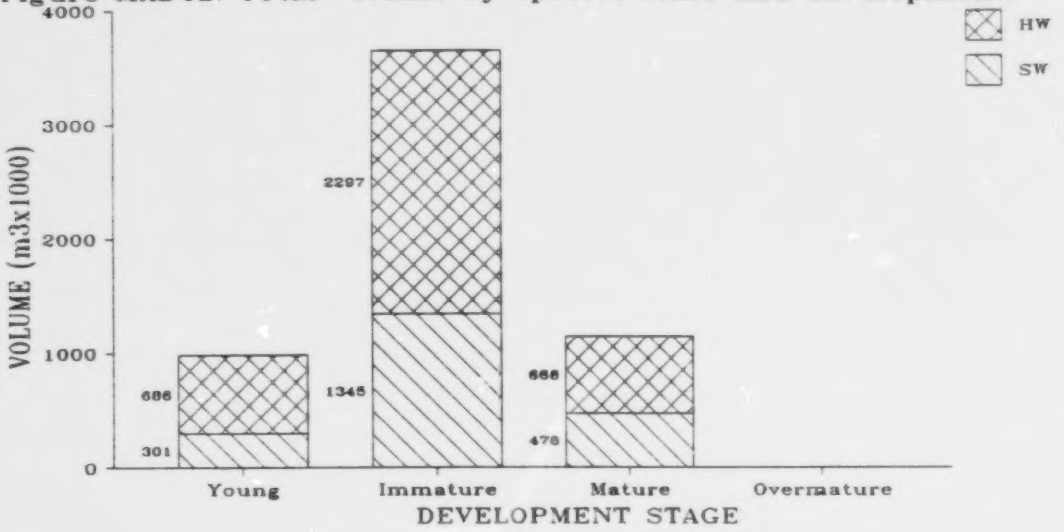


Figure MAD4b. Volume per ha by species class and development.

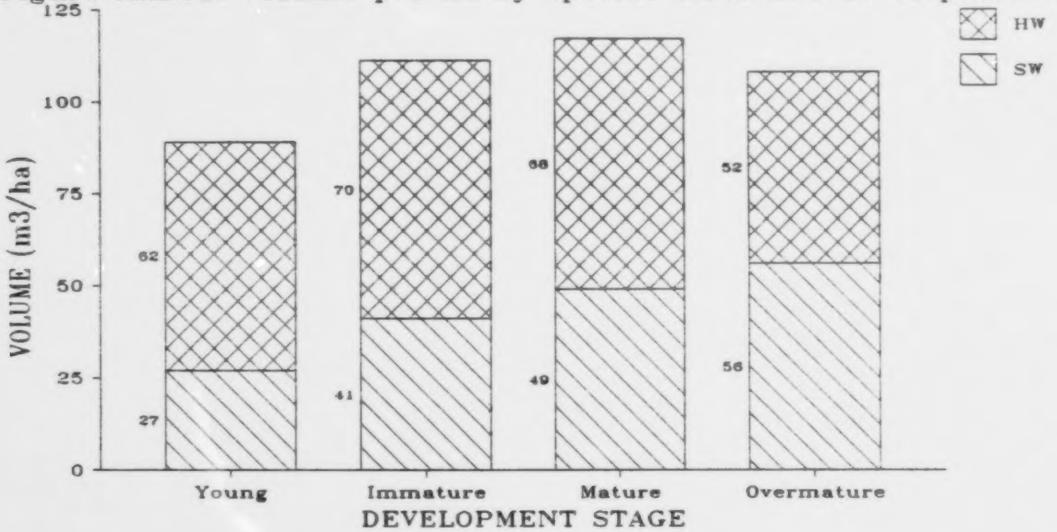


Figure MAD4c. Total area (hax1000) by development stage.

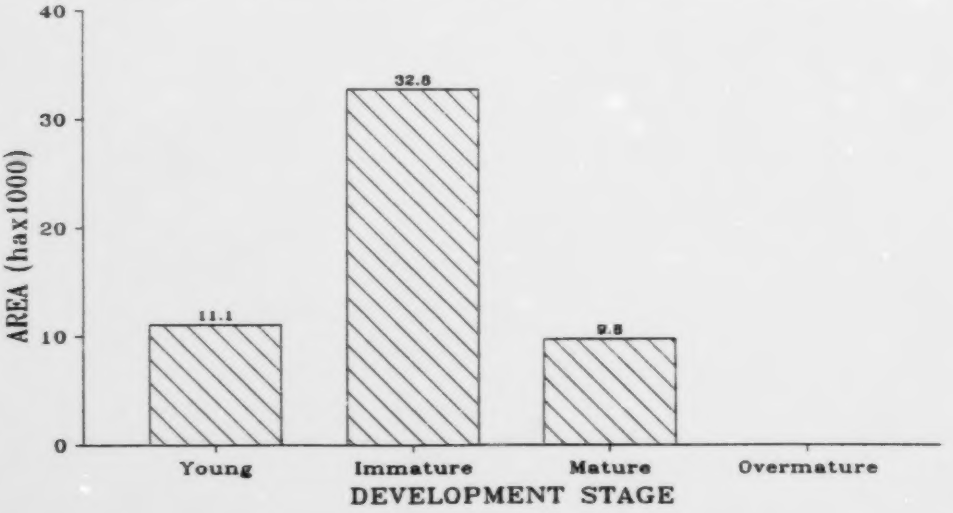
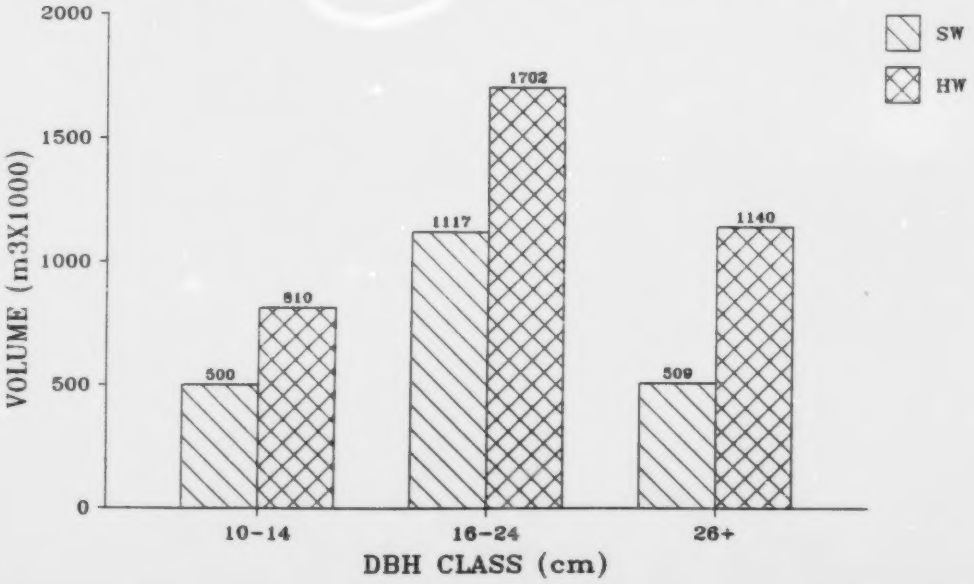


Table MAD8. Gross merchantable volume (m3) by species and DBH class (cm) on the Madawaska Forest Products Marketing Board Zone.

SPECIES	DBH CLASS			TOTAL	PERCENT
	10-14	16-24	26+		
Spruce	120803	351749	220286	692838	11.99
Balsam Fir	273162	490292	110899	874353	15.13
Jack Pine	0	445	0	445	.01
Red Pine	0	27	0	27	.00
White Pine	1568	3135	7054	11757	.20
Cedar	86616	216830	129633	433079	7.50
Hemlock	0	805	0	805	.01
Larch	17571	53231	41345	112147	1.94
TOTAL SOFTWOOD	499720	1116514	509217	2125451	36.79
Red Maple	157776	180961	53157	391894	6.78
Sugar Maple	166598	379981	285842	832421	14.41
Yellow Birch	34083	104414	119022	257519	4.46
Beech	84412	151052	144943	380407	6.58
Other Tolerant	0	1157	0	1157	.02
Total Tolerant	442869	817565	602964	1863398	32.25
White Birch	145372	175236	45640	366248	6.34
Poplar	212713	698150	484248	1395111	24.15
Other Intolerant	9067	11484	6649	27200	.47
Total Intolerant	367152	884870	536537	1788559	30.96
TOTAL HARDWOOD	810021	1702435	1139501	3651957	63.21
TOTAL ALL SPECIES	1309741	2818949	1648718	5777408	100.00
PERCENT	22.67	48.79	28.54	100.00	

Figure MAD5. Volume by species class and DBH class.



CARLETON-VICTORIA
FOREST PRODUCTS MARKETING BOARD

■ Private Woodlots
■ Water

The Carleton-Victoria Forest Products Marketing Board encompasses private woodlots within Victoria (excluding the parish of Drummond) and Carleton Counties. Approximately 45 percent of the private woodlots is covered by a deciduous forest, 32 percent is mixed-wood, and 23 percent is covered by a coniferous forest. Approximately 38 percent of the productive forest land is in the immature-old development stage. Cedar makes up over 17 percent of the total merchantable volume on the woodlots. Other predominant species by merchantable volume include balsam fir, poplar, spruce, sugar maple, beech, red maple, yellow birch, larch, white birch and hemlock. Approximately 47 percent of the merchantable volume is in the 16-24 cm DBH size class, 35 percent is in the 26+ cm DBH range and 18 percent is in the 10-14 cm DBH class.

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Table C-V4. Area (ha) by cover type, forest unit and development stage on the Carleton-Victoria Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	753	660	5684	3102	23	10222	7.58
	BFSP	157	70	1394	2343	54	4018	2.98
	PINE	28	10	40	44	0	122	.09
	PSSP	0	0	131	302	0	433	.32
	OTSW	240	390	3629	12113	61	16433	12.18
	TOTAL	1178	1130	10878	17904	138	31228	23.15
SH	SPTH	60	70	5042	2655	1	7828	5.80
	SPIH	195	214	3215	1383	24	5031	3.73
	BFTH	13	57	1133	1219	18	2440	1.81
	BFIH	62	29	816	1298	70	2275	1.69
	TOTAL	330	370	10206	6555	113	17574	13.03
HS	THSP	146	81	4894	2720	11	7852	5.82
	IHSP	427	574	6311	3050	35	10397	7.71
	THBF	22	81	1675	1674	0	3452	2.56
	IHBF	147	126	1965	2087	34	4359	3.23
	TOTAL	742	862	14845	9531	80	26060	19.32
H	TOHW	786	6557	20912	6092	12	34359	25.47
	THIH	348	504	2681	765	0	4298	3.19
	INHW	3387	1456	7809	4103	51	16806	12.45
	INTH	583	220	2493	1292	0	4588	3.40
	TOTAL	5104	8737	33895	12252	63	60051	44.51
ALL COVER TYPES	TOTAL	7354	11099	69824	46242	394	134913	100.00
ALL COVER TYPES	PERCENT	5.45	8.23	51.75	34.27	.30	100.00	

Figure C-V3. Area by cover type and development stage.

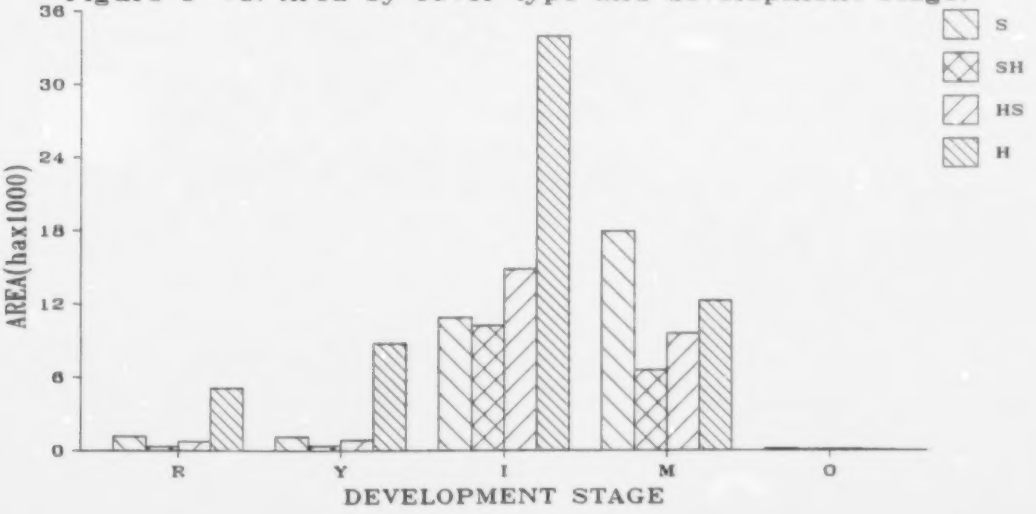


Table C-V5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Carleton-Victoria Forest Products Marketing Board Zone.

COVER	FOREST	SPECIES		DEVELOPMENT STAGE			TOTAL	PERCENT
TYPE	UNIT	CLASS	Young	Immature	Mature	Overmature		
S	SPBF	SW	60852	740725	403645	2990	1208212	7.73
		HW	9504	70014	35153	255	114926	.74
	BFSP	SW	4297	177967	259290	5974	447528	2.86
		HW	1417	41004	42952	987	86360	.55
	PINE	SW	908	4403	4844	0	10155	.06
		HW	86	195	490	0	771	.00
	PSSP	SW	0	14082	14895	0	28977	.19
		HW	0	785	0	0	785	.01
	OTSW	SW	31248	431660	1931847	9725	2404480	15.39
		HW	5419	31515	151063	758	188755	1.21
SH	SPTH	SW	3833	343770	233639	85	581327	3.72
		HW	1621	211303	128472	46	341442	2.19
	SPIH	SW	12251	287205	126382	2190	428028	2.74
		HW	6938	157992	53508	926	219364	1.40
	BFTH	SW	2761	62314	88763	1308	155146	.99
		HW	1486	31438	37453	550	70927	.45
	BFIH	SW	1347	62246	89073	4800	157466	1.01
		HW	803	18066	48997	2639	70505	.45
HS	THSP	SW	3506	243228	175575	708	423017	2.71
		HW	3565	317780	163496	658	485499	3.11
	IHSP	SW	31569	407654	227784	2610	669617	4.29
		HW	15975	310771	164697	1886	493329	3.16
	THBF	SW	4013	96590	91440	0	192043	1.23
		HW	3886	89192	131826	0	224904	1.44
	IHBF	SW	7281	98512	135530	2205	243528	1.56
		HW	4138	104538	123743	2015	234434	1.50
H	TOHW	SW	71032	229786	121357	237	422412	2.70
		HW	586692	2105300	655527	1287	3348806	21.43
	THIH	SW	11970	65347	27539	0	104856	.67
		HW	44100	222686	64768	0	331554	2.12
	INHW	SW	26936	233857	196485	2440	459718	2.94
		HW	48048	616497	348447	4328	1017320	6.51
	IHTH	SW	4494	68190	61009	0	133693	.86
		HW	12896	210876	101634	0	325406	2.08

Table C-V5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Carleton-Victoria Forest Products Marketing Board Zone.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
S	SW	97305	1368837	2614521	18689	4099352	26.24
	HW	16426	143513	229658	2000	391597	2.51
	TOTAL	113731	1512350	2844179	20689	4490949	28.74
SH	SW	20192	755535	537857	8383	1321967	8.46
	HW	10848	418799	268430	4161	702238	4.49
	TOTAL	31040	1174334	806287	12544	2024205	12.95
HS	SW	46369	845984	630329	5523	1528205	9.78
	HW	27564	822281	583762	4559	1438166	9.20
	TOTAL	73933	1668265	1214091	10082	2966371	18.98
H	SW	114432	597180	406390	2677	1120679	7.17
	HW	691736	3155359	1170376	5615	5023086	32.15
	TOTAL	806168	3752539	1576766	8292	6143765	39.32
ALL COVER TYPES	SW	278298	3567536	4189097	35272	8070203	51.65
	HW	746574	4539952	2252226	16335	7555087	48.35
	TOTAL	1024872	8107488	6441323	51607	15625290	100.00
ALL COVER TYPES (%)	SW	1.78	22.83	26.81	.23	51.65	
	HW	4.78	29.06	14.41	.10	48.35	
	TOTAL	6.56	51.89	41.22	.33	100.00	

Table C-V6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Carleton-Victoria Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	92	130	130	130	128
		HW	14	12	11	11	12
	BFSP	SW	61	128	111	111	116
		HW	20	29	18	18	22
	PINE	SW	91	110	110	0	108
		HW	9	5	11	0	8
	PSSP	SW	0	107	49	0	67
		HW	0	6	0	0	2
	OTSW	SW	80	119	159	159	148
		HW	14	9	12	12	12
SH	SPTH	SW	55	68	88	85	75
		HW	23	42	48	46	44
	SPIH	SW	57	89	91	91	89
		HW	32	49	39	39	45
	BFTH	SW	48	55	73	73	64
		HW	26	28	31	31	29
	BFIH	SW	46	76	69	69	71
		HW	28	22	38	38	32
HS	THSP	SW	43	50	65	64	55
		HW	44	65	60	60	63
	IHSP	SW	55	65	75	75	67
		HW	28	49	54	54	49
	THBF	SW	50	58	55	0	56
		HW	48	53	79	0	66
	IHBF	SW	58	50	65	65	58
		HW	33	53	59	59	56
H	TOHW	SW	11	11	20	20	13
		HW	89	101	108	107	100
	THIH	SW	24	24	36	0	27
		HW	88	83	85	0	84
	INHW	SW	19	30	48	48	34
		HW	33	79	85	85	76
	IHTH	SW	20	27	47	0	33
		HW	59	85	79	0	81

Table C-V7. Gross merchantable volume (m3) by species and development stage on the Carleton-Victoria Forest Products Marketing Board Zone.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	94889	1217761	927684	8743	2249077	14.39
Balsam Fir	108986	1339127	972536	9662	2430311	15.55
Jack Pine	1443	2953	93	0	4489	.03
Red Pine	28	9	1652	0	1689	.01
White Pine	3977	25344	16351	99	45771	.29
Cedar	32119	663888	1985561	15112	2696680	17.26
Hemlock	4987	89279	92564	390	187220	1.20
Larch	31869	229175	192656	1266	454966	2.91
TOTAL SOFTWOOD	278298	3567536	4189097	35272	8070203	51.65
Red Maple	55238	448170	325283	2239	830930	5.32
Sugar Maple	274572	1376617	542342	1513	2195044	14.05
Yellow Birch	40921	326147	201488	1225	569781	3.65
Beech	196346	551159	135968	261	883734	5.66
Other Tolerant	8758	56393	23888	119	89158	.57
Total Tolerant	575835	2758486	1228969	5357	4568647	29.24
White Birch	26243	213711	120614	1378	361946	2.32
Poplar	115916	1383735	824692	9213	2333556	14.93
Other Intolerant	28580	184020	77951	387	290938	1.86
Total Intolerant	170739	1781466	1023257	10978	2986440	19.11
TOTAL HARDWOOD	746574	4539952	2252226	16335	7555087	48.35
TOTAL ALL SPECIES	1024872	8107488	6441323	51607	15625290	100.00
PERCENT	6.56	51.89	41.22	.33	100.00	

Figure C–V4a. Total volume by species class and development.

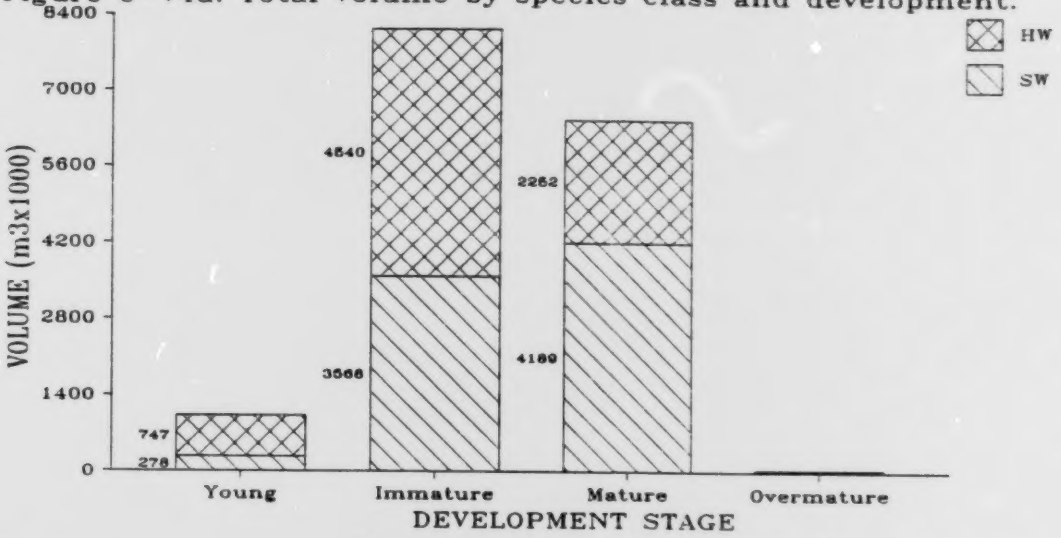


Figure C–V4b. Volume per ha by species class and development.

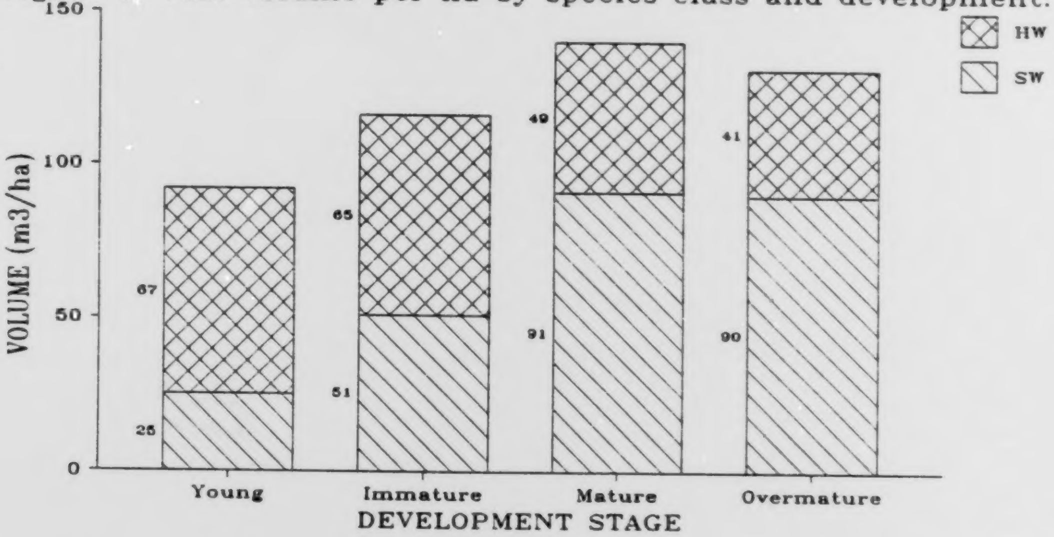


Figure C–V4c. Total area (hax1000) by development stage.

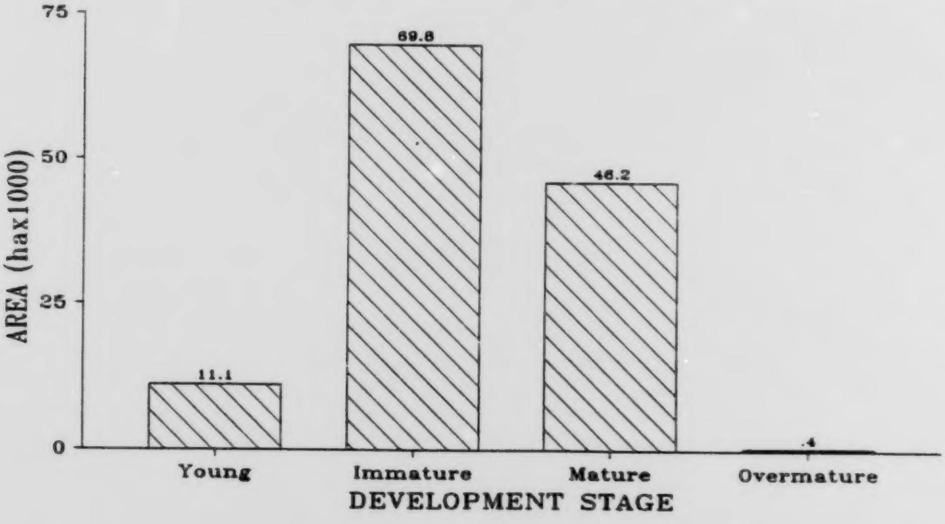
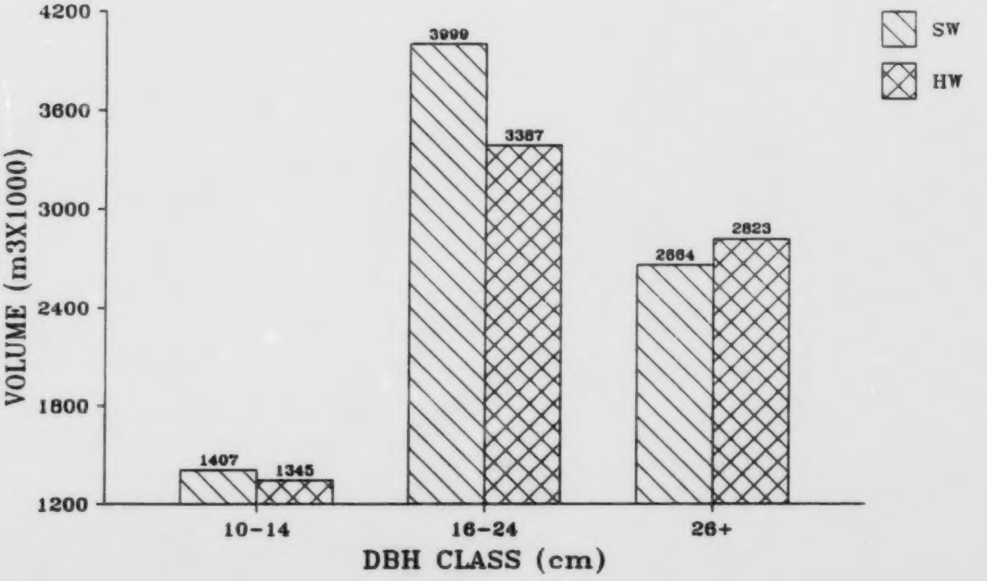


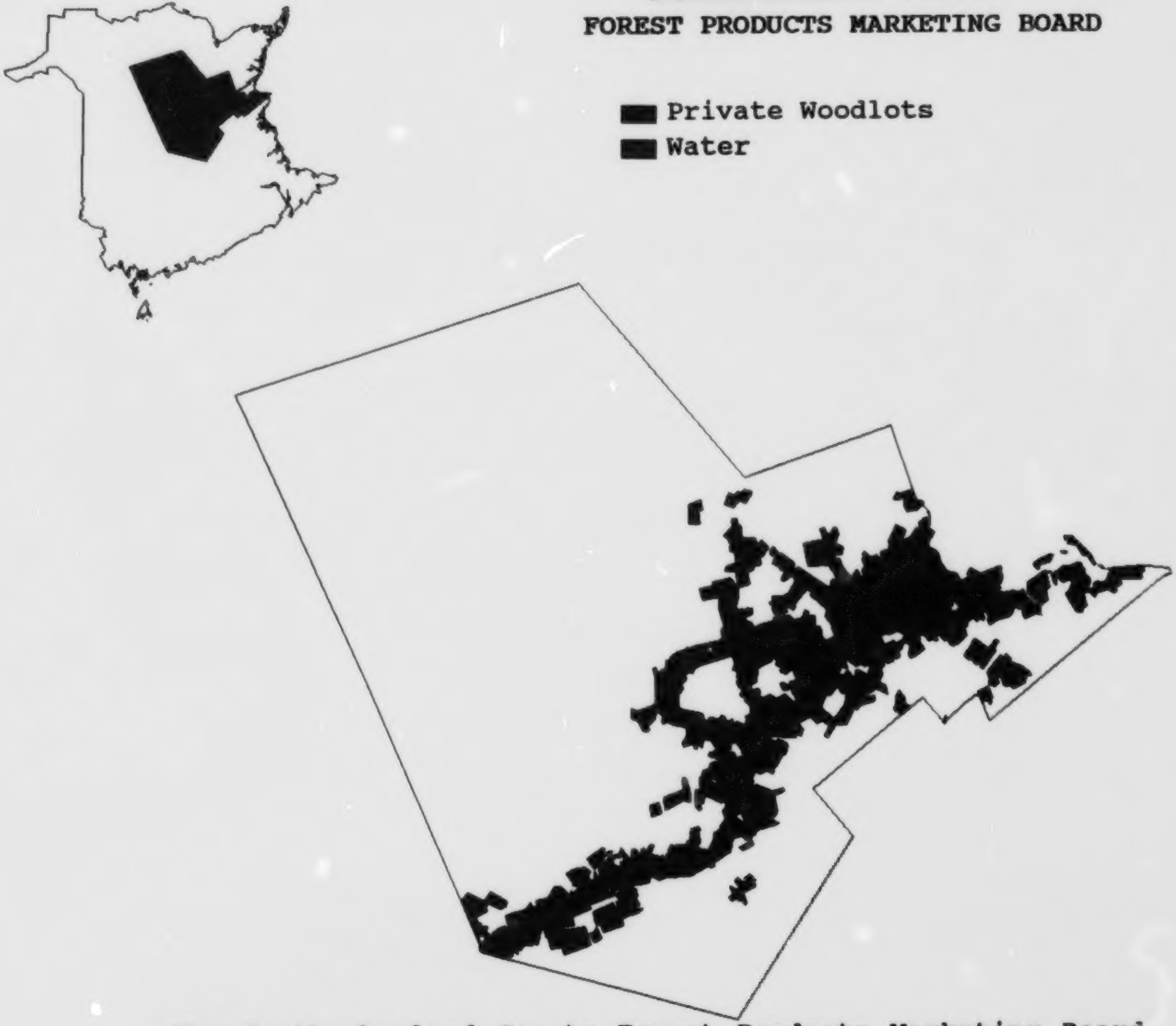
Table C-V8. Gross merchantable volume (m3) by species and DBH class (cm) on the Carleton-Victoria Forest Products Marketing Board Zone.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	262859	1026550	959668	2249077	14.39
Balsam Fir	653127	1306254	470930	2430311	15.55
Jack Pine	0	4489	0	4489	.03
Red Pine	0	1689	0	1689	.01
White Pine	0	5970	39801	45771	.29
Cedar	405273	1416142	875265	2696680	17.26
Hemlock	9208	32226	145786	187220	1.20
Larch	76626	205932	172408	454966	2.91
TOTAL SOFTWOOD	1407093	3999252	2663858	8070203	51.65
Red Maple	199923	399846	231161	830930	5.32
Sugar Maple	384876	919947	890221	2195044	14.05
Yellow Birch	102027	243295	224459	569781	3.65
Beech	174603	392090	317041	883734	5.66
Other Tolerant	40669	37540	10949	89158	.57
Total Tolerant	902098	1992718	1673831	4568647	29.24
White Birch	113108	189052	59786	361946	2.32
Poplar	280283	1105116	948157	2333556	14.93
Other Intolerant	49522	100590	140826	290938	1.86
Total Intolerant	442913	1394758	1148769	2986440	19.11
TOTAL HARDWOOD	1345011	3387476	2822600	7555087	48.35
TOTAL ALL SPECIES	2752104	7386728	5486458	15625290	100.00
PERCENT	17.61	47.27	35.11	100.00	

Figure C-V5. Volume by species class and DBH class.



NORTHUMBERLAND COUNTY
FOREST PRODUCTS MARKETING BOARD



The Northumberland County Forest Products Marketing Board encompasses private woodlots within Nortumberland County (excluding the parishes of Rogersville and Alnwick). Approximately 45 percent of the private woodlots is covered by a coniferous forest, predominantly spruce, 39 percent is mixedwood and 16 percent is covered by a deciduous forest. Approximately 33 percent of the productive forest land is in the immature-old development stage. Spruce makes up over 35 percent of the total merchantable volume on the woodlots. Other predominant species by merchantable volume include balsam fir, cedar, poplar, red maple, white pine, white birch, jack pine, larch, beech, hemlock, sugar maple and yellow birch. Approximately 47 percent of the merchantable volume is in the 16-24 cm DBH size class, 29 percent is in the 26+ cm DBH range and 24 percent is in the 10-14 cm DBH class.

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Table NOR4. Area (ha) by cover type, forest unit and development stage on the Northumberland Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	DEVELOPMENT Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	1534	5070	16500	10003	21	33128	29.54
	BFSP	1190	1247	2248	2692	13	7390	6.59
	PINE	140	1097	1083	621	0	2941	2.62
	PSSP	52	177	619	365	8	1221	1.09
	OTSW	86	788	1518	3506	88	5986	5.34
	TOTAL	3002	8379	21968	17187	130	50666	45.19
SH	SPTH	289	1216	3891	2578	1	7975	7.11
	SPIH	347	1993	3116	1015	0	6471	5.77
	BFTH	797	1273	2088	1435	0	5593	4.99
	BFIH	321	692	1019	785	6	2823	2.52
	TOTAL	1754	5174	10114	5813	7	22862	20.39
HS	THSP	439	841	2335	1582	0	5197	4.63
	IHSP	551	2303	3530	1502	16	7902	7.05
	THBF	639	812	1257	569	0	3277	2.92
	IHBF	553	936	1877	879	0	4245	3.78
	TOTAL	2182	4892	8999	4532	16	20621	18.39
H	TOHW	115	618	719	641	9	2102	1.87
	THIH	309	741	873	281	0	2204	1.97
	INHW	2442	3540	2547	1314	114	9957	8.87
	IHTH	1274	1091	1172	177	4	3718	3.32
	TOTAL	4140	5990	5311	2413	127	17981	16.04
ALL COVER TYPES	TOTAL	11078	24435	46392	29945	280	112130	100.00
ALL COVER TYPES	PERCENT	9.88	21.79	41.37	26.71	.25	100.00	

Figure NOR3. Area by cover type and development stage.

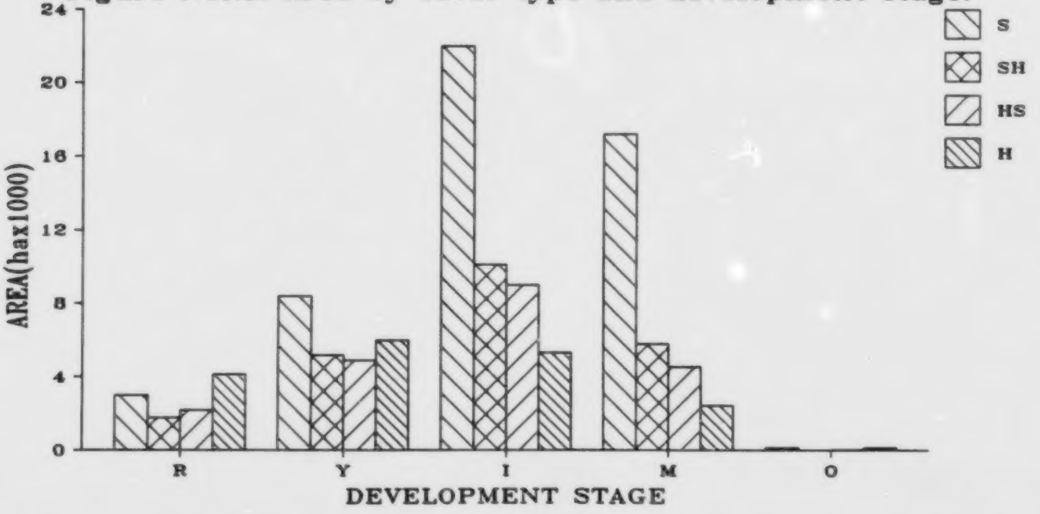


Table NOR5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Northumberland Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
			Young	Immature	Mature	Overmature		
S	SPBF	SW	386849	1476915	1166095	2444	3032303	28.82
		HW	33835	129690	143290	298	307113	2.92
	BFSP	SW	57361	217305	279508	1347	555521	5.28
		HW	23691	39338	37577	178	100784	.96
	PINE	SW	127564	119233	68384	0	315181	3.00
		HW	1723	5267	6908	0	13898	.13
	PSSP	SW	19027	66542	18003	393	103965	.99
		HW	1061	3713	0	0	4774	.05
	OTSW	SW	65559	167282	529989	13300	776130	7.38
		HW	7640	14875	50055	1255	73825	.70
SH	SPTH	SW	73112	256802	243188	91	573193	5.45
		HW	28728	117774	95874	35	242411	2.30
	SPIH	SW	101391	212983	63295	0	377669	3.59
		HW	46958	107591	32108	0	186657	1.77
	BFTH	SW	71831	134947	165024	0	371802	3.53
		HW	22911	67911	50222	0	141044	1.34
	BFIH	SW	26468	48592	71042	543	146645	1.39
		HW	18682	39420	25314	193	83609	.79
HS	THSP	SW	45748	140535	116823	0	303106	2.88
		HW	40365	117477	92604	0	250446	2.38
	IHSP	SW	77147	194417	81555	865	353984	3.36
		HW	109773	177040	109792	1167	397772	3.78
	THBF	SW	42086	51535	46278	0	139899	1.33
		HW	34914	61842	33190	0	129946	1.24
	IHBF	SW	65676	95187	75065	0	235928	2.24
		HW	27300	111678	47638	0	186616	1.77
H	TOHW	SW	15450	12461	13619	189	41719	.40
		HW	37286	32832	31567	441	102126	.97
	THIH	SW	7780	21387	6663	0	35830	.34
		HW	64465	62416	24373	0	151254	1.44
	INHW	SW	97568	58214	42046	3646	201474	1.92
		HW	124562	178408	91189	7909	402068	3.82
	IHTH	SW	38303	17411	7291	162	63167	.60
		HW	37697	67471	12999	291	118458	1.13

Table NOR5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Northumberland Forest Products Marketing Board Zone.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	656360	2047277	2061979	17484	4783100	45.47
	HW	67950	192883	237830	1731	500394	4.76
	TOTAL	724310	2240160	2299809	19215	5283494	50.22
SH	SW	272802	653324	542549	634	1469309	13.97
	HW	117279	332696	203518	228	653721	6.21
	TOTAL	390081	986020	746067	862	2123030	20.18
HS	SW	230657	481674	319721	865	1032917	9.82
	HW	212352	468037	283224	1167	964780	9.17
	TOTAL	443009	949711	602945	2032	1997697	18.99
H	SW	159101	109473	69619	3997	342190	3.25
	HW	264010	341127	160128	8641	773906	7.36
	TOTAL	423111	450600	229747	12638	1116096	10.61
ALL COVER TYPES	SW	1318920	3291748	2993868	22980	7627516	72.50
	HW	661591	1334743	884700	11767	2892801	27.50
	TOTAL	1980511	4626491	3878568	34747	10520317	100.00
ALL COVER TYPES (%)	SW	12.54	31.29	28.46	.22	72.50	
	HW	6.29	12.69	8.41	.11	27.50	
	TOTAL	18.83	43.98	36.87	.33	100.00	

Table NOR6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Northumberland Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	76	90	117	116	96
		HW	7	8	14	14	10
	BFSP	SW	46	97	104	104	90
		HW	19	17	14	14	16
	PINE	SW	116	110	110	0	113
		HW	2	5	11	0	5
	PSSP	SW	107	107	49	49	89
		HW	6	6	0	0	4
	OTSW	SW	83	110	151	151	132
		HW	10	10	14	14	13
SH	SPTH	SW	60	66	94	91	75
		HW	24	30	37	35	32
	SPIH	SW	51	68	62	0	62
		HW	24	35	32	0	30
	BFTH	SW	56	65	115	0	78
		HW	18	33	35	0	29
	BFIH	SW	38	48	90	91	59
		HW	27	39	32	32	33
HS	THSP	SW	54	60	74	0	64
		HW	48	50	59	0	53
	IHSP	SW	33	55	54	54	48
		HW	48	50	73	73	54
	THBF	SW	52	41	81	0	53
		HW	43	49	58	0	49
	IHBF	SW	70	51	85	0	64
		HW	29	59	54	0	51
H	TOHW	SW	25	17	21	21	21
		HW	60	46	49	49	51
	THIH	SW	10	24	24	0	19
		HW	87	71	87	0	80
	INHW	SW	28	23	32	32	27
		HW	35	70	69	69	54
	IHTH	SW	35	15	41	41	26
		HW	35	58	73	73	48

Table NOR7. Gross merchantable volume (m3) by species and development stage on the Northumberland Forest Products Marketing Board Zone.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	618766	1779466	1286434	5936	3690602	35.08
Balsam Fir	210781	651402	594700	4695	1461578	13.89
Jack Pine	158671	126014	43198	58	327941	3.12
Red Pine	2141	6223	17509	5	25878	.25
White Pine	123271	181911	171515	960	477657	4.54
Cedar	64911	341680	717157	10162	1133910	10.78
Hemlock	26108	60396	97948	532	184984	1.76
Larch	114271	144656	65407	632	324966	3.09
TOTAL SOFTWOOD	1318920	3291748	2993868	22980	7627516	72.50
Red Maple	152330	363723	291200	2277	809530	7.69
Sugar Maple	44742	48953	81391	408	175494	1.67
Yellow Birch	29831	49279	74175	210	153495	1.46
Beech	72459	102306	38580	73	213418	2.03
Other Tolerant	546	748	476	5	1775	.02
Total Tolerant	299908	565009	485822	2973	1353712	12.87
White Birch	89963	161194	96643	1074	348874	3.32
Poplar	249331	577862	282701	7497	1117391	10.62
Other Hardwood	22389	30678	19534	223	72824	.69
Total Intolerant	361683	769734	398878	8794	1539089	14.63
TOTAL HARDWOOD	661591	1334743	884700	11767	2892801	27.50
TOTAL ALL SPECIES	1980511	4626491	3878568	34747	10520317	100.00
PERCENT	18.83	43.98	36.87	.33	100.00	

Figure NOR4a. Total volume by species class and development.

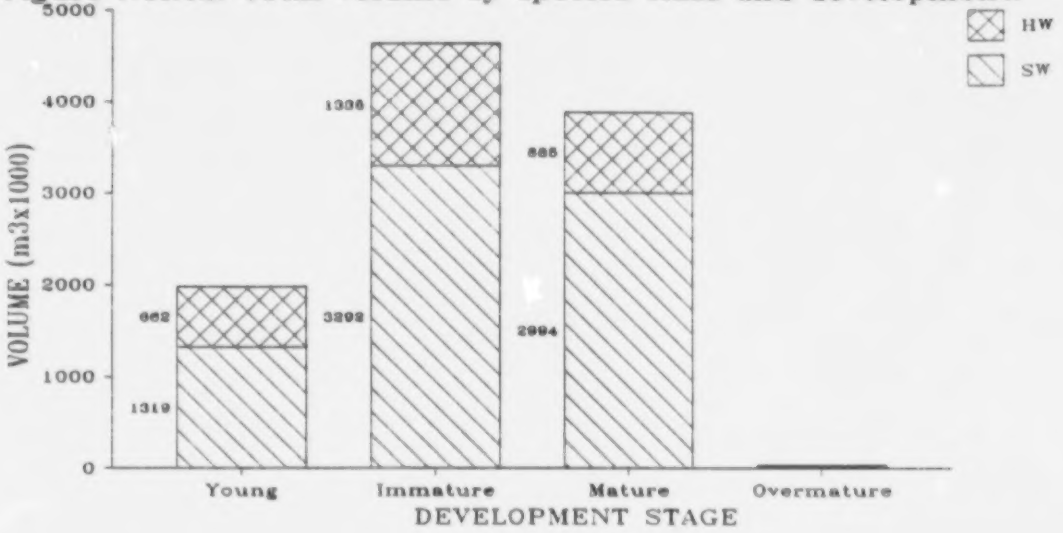


Figure NOR4b. Volume per ha by species class and development.

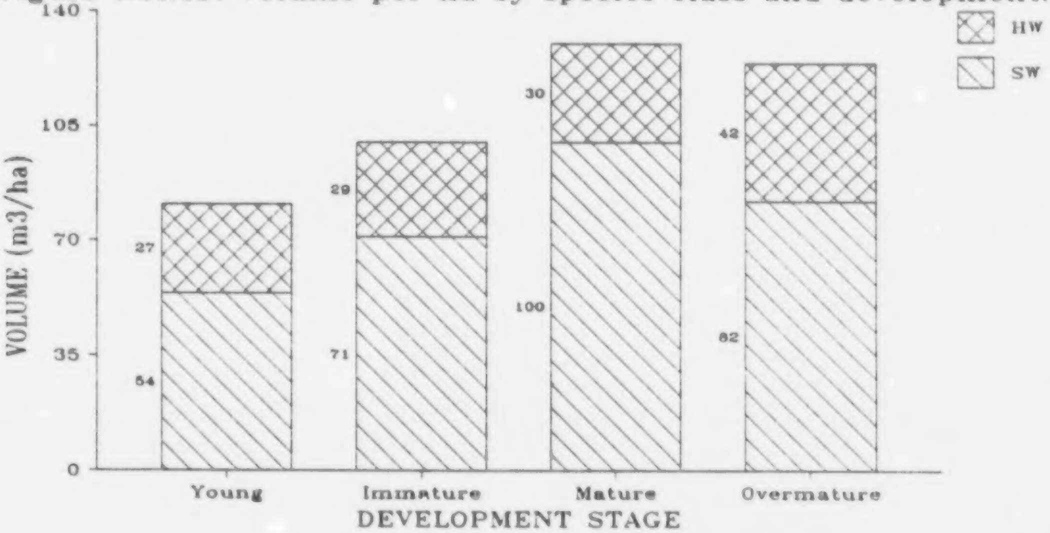


Figure NOR4c. Total area (hax1000) by development stage.

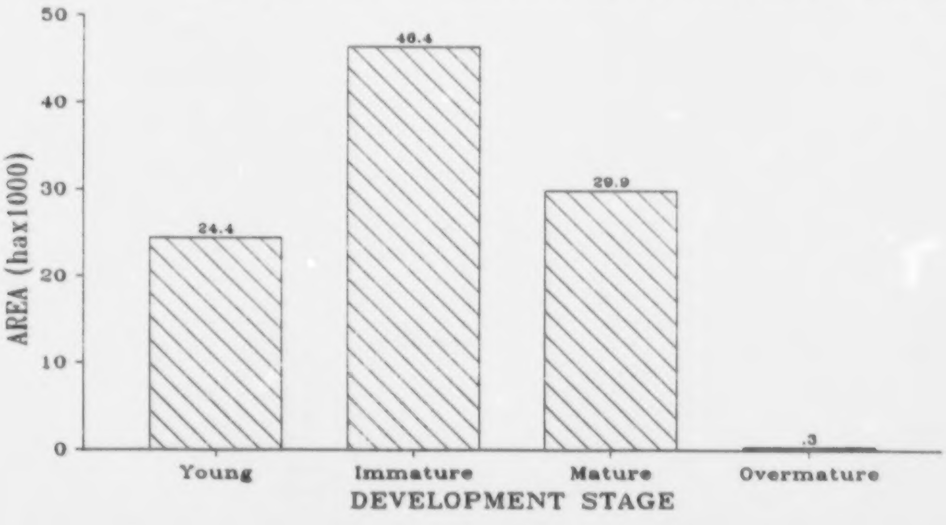
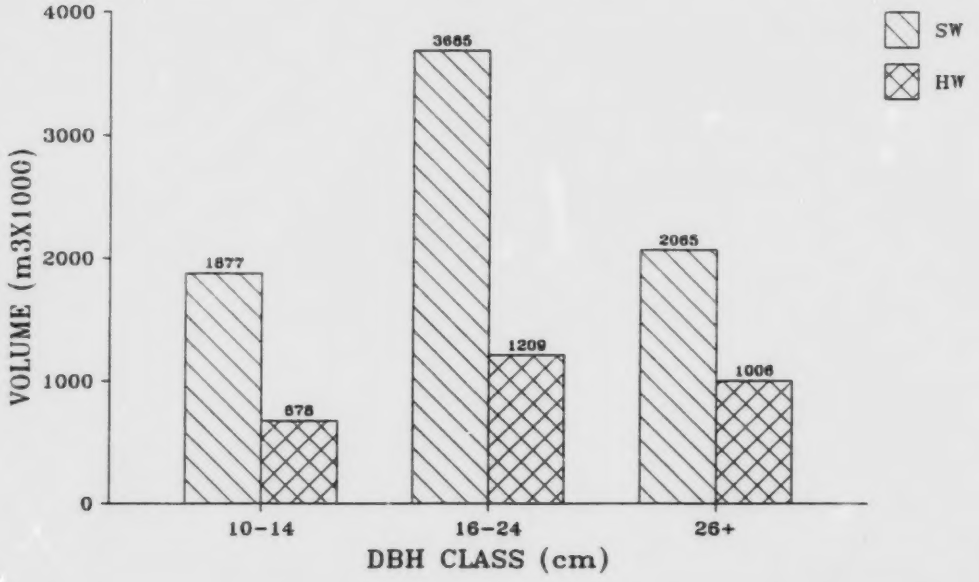
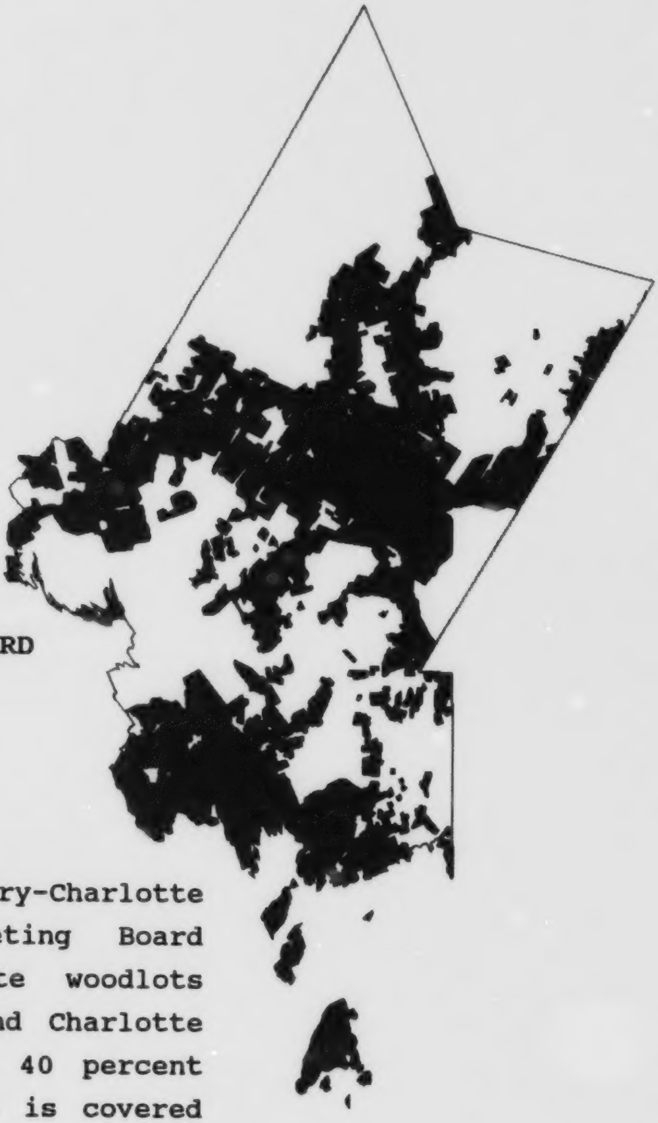


Table NOR8. Gross merchantable volume (m3) by species and DBH class (cm) on the Northumberland Forest Products Marketing Board Zone.

SPECIES		DBH CLASS		TOTAL	PERCENT
	10-14	16-24	26+		
Spruce	1027722	1860808	802072	3690602	35.08
Balsam Fir	452418	780885	228275	1461578	13.89
Jack Pine	74051	163971	89919	327941	3.12
Red Pine	0	5915	19963	25878	.25
White Pine	40148	93678	343831	477657	4.54
Cedar	193869	573718	366323	1133910	10.78
Hemlock	8144	50027	126813	184984	1.76
Larch	81019	155806	88141	324966	3.09
TOTAL SOFTWOOD	1877371	3684808	2065337	7627516	72.50
Red Maple	260872	354040	194618	809530	7.69
Sugar Maple	31908	69447	74139	175494	1.67
Yellow Birch	11975	51165	90355	153495	1.46
Beech	36241	98655	78522	213418	2.03
Other Tolerant	887	0	888	1775	.02
Total Tolerant	341883	573307	438522	1353712	12.87
White Birch	100361	160578	87935	348874	3.32
Poplar	185893	456099	475399	1117391	10.62
Other Intolerant	49653	18757	4414	72824	.69
Total Intolerant	335907	635434	567748	1539089	14.63
TOTAL HARDWOOD	677790	1208741	1006270	2892801	27.50
TOTAL ALL SPECIES	2555161	4893549	3071607	10520317	100.00
PERCENT	24.29	46.52	29.20	100.00	

Figure NOR5. Volume by species class and DBH class.





YORK-SUNBURY-CHARLOTTE
FOREST PRODUCTS MARKETING BOARD

■ Private Woodlots
■ Water

The York-Sunbury-Charlotte Forest Products Marketing Board encompasses all private woodlots within York, Sunbury and Charlotte Counties. Approximately 40 percent of the private woodlots is covered by a mixed-wood forest, 37 percent is coniferous and 23 percent is covered by a deciduous forest. Approximately 42 percent of the productive forest land is in the immature-old development stage. Spruce and balsam fir make up over 37 percent of the total merchantable volume on the woodlots. Other predominant species by merchantable volume include cedar, red maple, poplar, white birch, hemlock, sugar maple, beech, yellow birch and white pine. Approximately 45 percent of the merchantable volume is in the 16-24 cm DBH size class, 36 percent is in the 26+ cm DBH range and 19 percent is in the 10-14 cm DBH class.

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Table YSC4. Area (ha) by cover type, forest unit and development stage on the York-Sunbury-Charlotte Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	3300	1777	32266	23949	202	61494	20.74
	BFSP	3436	763	4744	3142	336	12421	4.19
	PINE	54	33	988	582	10	1667	.56
	PSSP	0	0	239	1691	33	1963	.66
	OTSW	398	1110	7462	21095	928	30993	10.45
	TOTAL	7188	3683	45699	50459	1509	108538	36.61
SH	SPTH	794	191	17769	12553	125	31432	10.60
	SPIH	541	858	8568	6298	42	16307	5.50
	BFTH	388	226	2470	1542	8	4634	1.56
	BFIH	1527	630	2056	806	20	5039	1.70
	TOTAL	3250	1905	30863	21199	195	57412	19.36
HS	THSP	762	662	18194	8669	33	28320	9.55
	IHSP	1184	718	14258	7098	32	23290	7.86
	THBF	394	253	1723	655	5	3030	1.02
	IHBF	2200	808	2687	1092	0	6787	2.29
	TOTAL	4540	2441	36862	17514	70	61427	20.72
H	TOHW	1164	1465	21913	7312	47	31901	10.76
	THIH	926	389	6180	2300	4	9799	3.30
	INHW	4089	961	8117	5988	128	19283	6.50
	IHTH	1421	473	4167	2058	13	8132	2.74
	TOTAL	7600	3288	40377	17658	192	69115	23.31
ALL COVER TYPES	TOTAL	22578	11317	153801	106830	1966	296492	100.00
ALL COVER TYPES	PERCENT	7.62	3.82	51.87	36.03	.66	100.00	

Figure YSC3. Area by cover type and development stage.

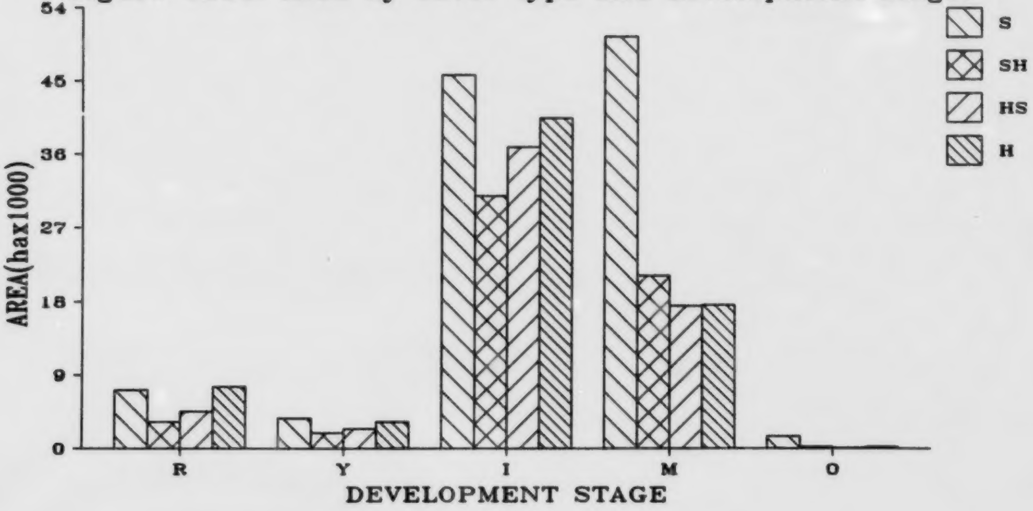


Table YSC5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the York-Sunbury-Charlotte Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	95364	3124979	2389766	20156	5630265	18.31
		HW	7107	550743	542842	4575	1105267	3.60
	BFSP	SW	63901	414915	272158	22288	773262	2.52
		HW	3815	145601	87972	13552	250940	.82
	PINE	SW	3909	111642	80514	1379	197444	.64
		HW	159	35320	8357	142	43978	.14
	PSSP	SW	0	10596	117805	2298	130699	.43
		HW	0	606	0	0	606	.00
	OTSW	SW	87928	883806	2118024	76714	3166472	10.30
		HW	8252	94370	334375	6804	443801	1.44
SH	SPTH	SW	12669	1280239	1002392	9979	2305279	7.50
		HW	3695	750374	526483	5241	1285793	4.18
	SPIH	SW	46904	632316	410068	2732	1092020	3.55
		HW	11726	361281	276059	1837	650903	2.12
	BFTH	SW	9640	171816	52734	271	234461	.76
		HW	5233	108523	62295	322	176373	.57
	BFIH	SW	41496	146814	46344	1150	235804	.77
		HW	9240	76912	33851	840	120843	.39
HS	THSP	SW	29218	984368	464718	1767	1480071	4.81
		HW	28474	1062450	586701	2231	1679856	5.46
	IHSP	SW	31112	816646	330409	1487	1179654	3.84
		HW	7418	714110	459238	2069	1182835	3.85
	THBF	SW	12015	97993	31275	237	141520	.46
		HW	11083	113284	31438	237	156042	.51
	IHBF	SW	37694	157994	53508	0	249196	.81
		HW	26100	145633	55328	0	227061	.74
H	TOHW	SW	17763	476368	255637	1640	751408	2.44
		HW	121774	2015357	534336	3432	2674899	8.70
	THIH	SW	9723	204744	99317	171	313955	1.02
		HW	26191	440927	188388	325	655831	2.13
	INHW	SW	12106	256133	219088	6291	493618	1.61
		HW	24007	545413	420565	13071	1003056	3.26
	IHTH	SW	1539	121118	86434	544	209635	.68
		HW	11636	293354	192627	1215	498832	1.62

Table YSC5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the York-Sunbury-Charlotte Forest Products Marketing Board Zone.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	251102	4545938	4978267	122835	9898142	32.20
	HW	19333	826640	973546	25073	1844592	6.00
	TOTAL	270435	5372578	5951813	147908	11742734	38.20
SH	SW	110709	2231185	1511538	14132	3867564	12.58
	HW	29894	1297090	898688	8240	2233912	7.27
	TOTAL	140603	3528275	2410226	22372	6101476	19.85
HS	SW	110039	2057001	879910	3491	3050441	9.92
	HW	73075	2035477	1132705	4537	3245794	10.56
	TOTAL	183114	4092478	2012615	8028	6296235	20.48
H	SW	41131	1058363	660476	8646	1768616	5.75
	HW	183608	3295051	1335916	18043	4832618	15.72
	TOTAL	224739	4353414	1996392	26689	6601234	21.47
ALL COVER TYPES	SW	512981	9892487	8030191	149104	18584763	60.45
	HW	305910	7454258	4340855	55893	12156916	39.55
	TOTAL	818891	17346745	12371046	204997	30741679	100.00
ALL COVER TYPES (%)	SW	1.67	32.18	26.12	.49	60.45	
	HW	1.00	24.25	14.12	.18	39.55	
	TOTAL	2.66	56.43	40.24	.67	100.00	

Table YSC6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the York-Sunbury-Charlotte Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	54	97	100	100	97
		HW	4	17	23	23	19
	BFSP	SW	84	87	87	66	86
		HW	5	31	28	40	28
	PINE	SW	118	113	138	138	122
		HW	5	36	14	14	27
	PSSP	SW	0	44	70	70	67
		HW	0	3	0	0	0
	OTSW	SW	79	118	100	83	103
		HW	7	13	16	7	15
SH	SPTH	SW	66	72	80	80	75
		HW	19	42	42	42	42
	SPIH	SW	55	74	65	65	69
		HW	14	42	44	44	41
	BFTH	SW	43	70	34	34	55
		HW	23	44	40	40	42
	BFIH	SW	66	71	57	58	67
		HW	15	37	42	42	34
HS	THSP	SW	44	54	54	54	54
		HW	43	58	68	68	61
	IHSP	SW	43	57	47	46	53
		HW	10	50	65	65	54
	THBF	SW	47	57	48	47	54
		HW	44	66	48	47	59
	IHBF	SW	47	59	49	0	54
		HW	32	54	51	0	50
H	TOHW	SW	12	22	35	35	24
		HW	83	92	73	73	87
	THIH	SW	25	33	43	43	35
		HW	67	71	82	81	74
	INHW	SW	13	32	37	49	32
		HW	25	67	70	102	66
	INTH	SW	3	29	42	42	31
		HW	25	70	94	93	74

Table YSC7. Gross merchantable volume (m3) by species and development stage on the York-Sunbury-Charlotte Forest Products Marketing Board Zone.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	221738	3454942	2810027	55307	6542014	21.28
Balsam Fir	138760	3252225	1502956	12855	4906796	15.96
Jack Pine	5539	93	6544	112	12288	.04
Red Pine	246	15582	8536	438	24802	.08
White Pine	14862	389797	283599	3718	691976	2.25
Cedar	54278	1616658	2664788	70801	4406525	14.33
Hemlock	7634	754472	629630	5441	1397177	4.54
Larch	69924	408718	124111	432	603185	1.96
TOTAL SOFTWOOD	512981	9892487	8030191	149104	18584763	60.45
Red Maple	66196	2039323	1538974	28553	3673046	11.95
Sugar Maple	42807	759902	430653	2372	1235734	4.02
Yellow Birch	27069	586509	354837	1875	970290	3.16
Beech	53061	687958	248320	1280	990619	3.22
Other Tolerant	2925	106684	34620	171	144400	.47
Total Tolerant	192058	4180376	2607404	34251	7014089	22.82
White Birch	55675	950221	570815	5908	1582619	5.15
Poplar	42803	1763003	980698	14838	2801342	9.11
Other Intolerant	15374	560658	181938	896	758866	2.47
Total Intolerant	113852	3273882	1733451	21642	5142827	16.73
TOTAL HARDWOOD	305910	7454258	4340855	55893	12156916	39.55
TOTAL ALL SPECIES	818891	17346745	12371046	204997	30741679	100.00
PERCENT	2.66	56.43	40.24	.67	100.00	

Figure YSC4a. Total volume by species class and development.

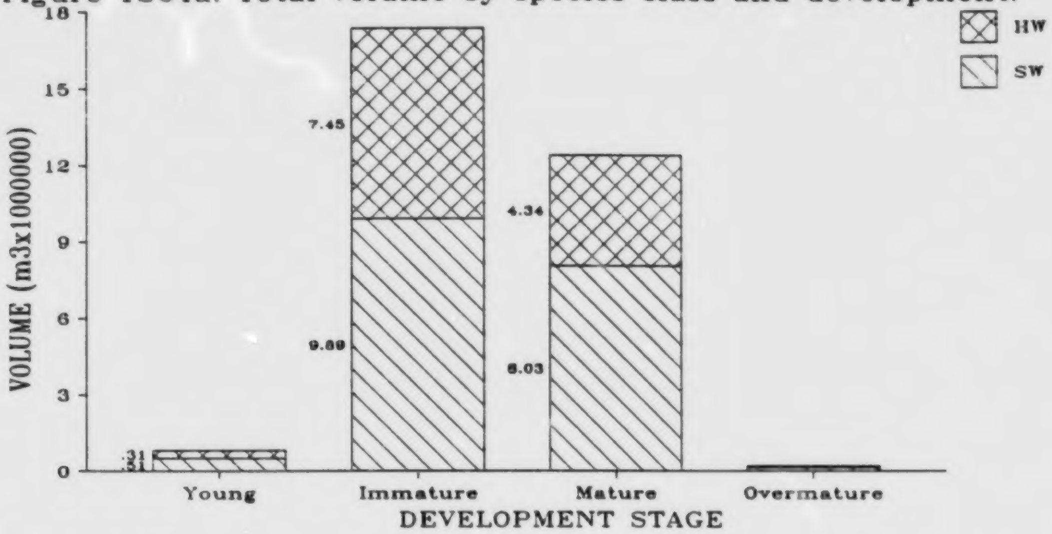


Figure YSC4b. Volume per ha by species class and development.

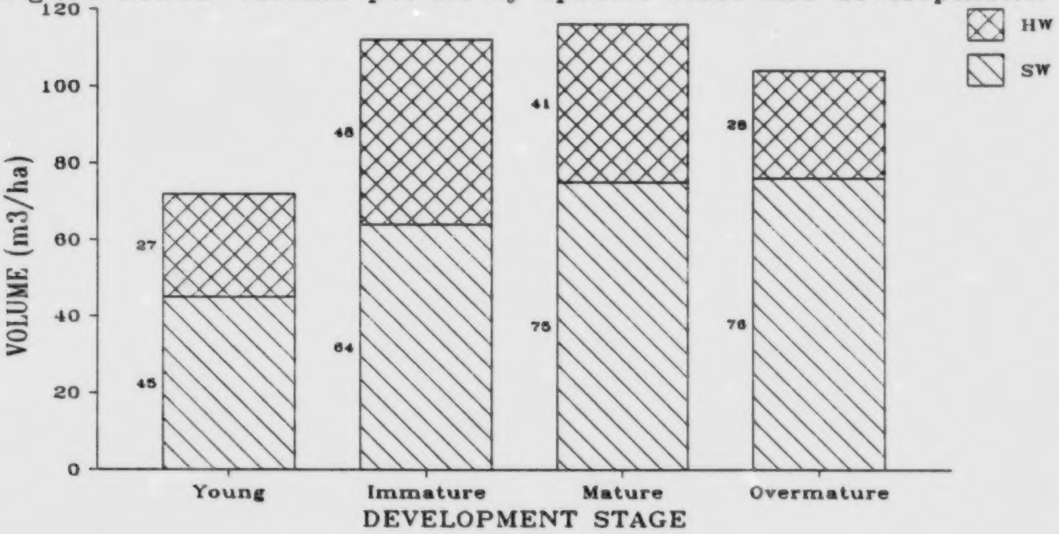


Figure YSC4c. Total area (hax1000) by development stage.

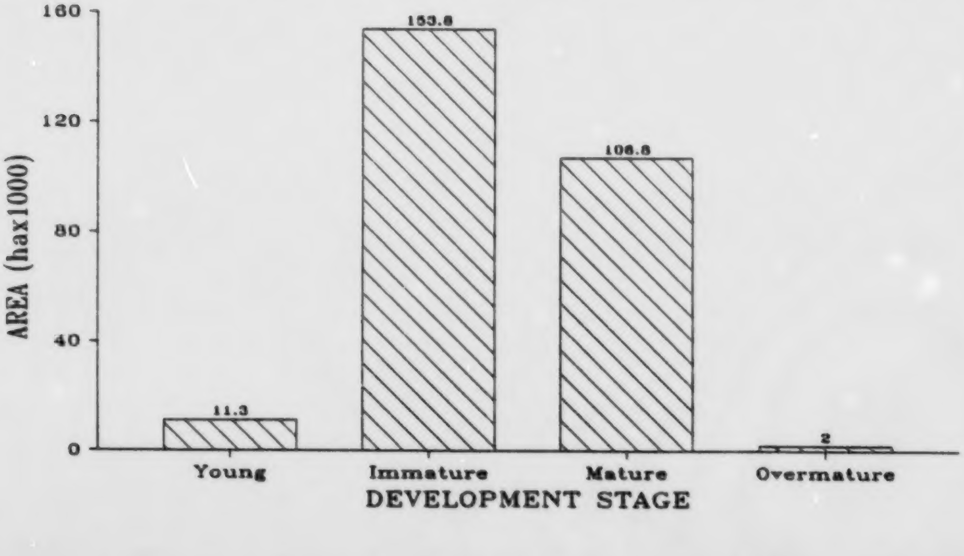
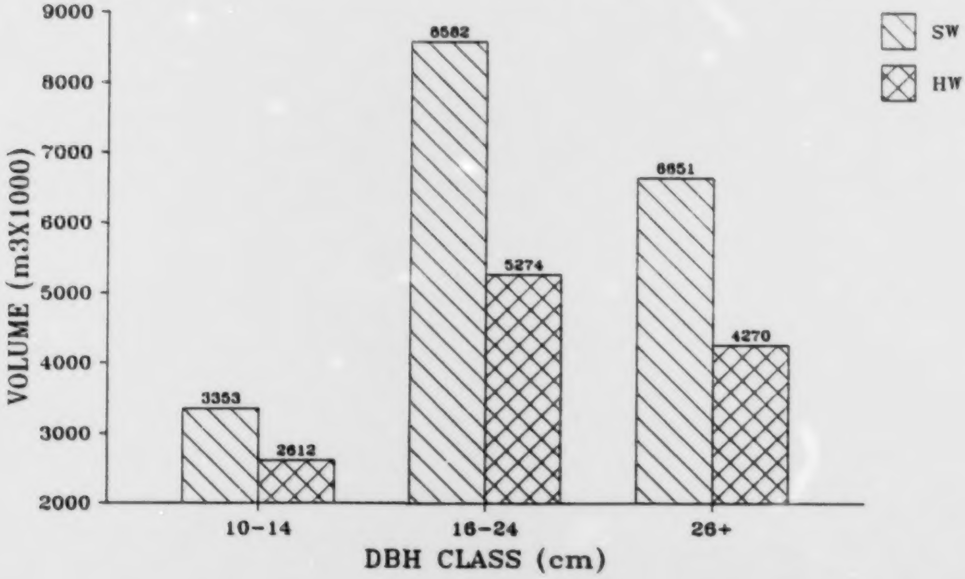


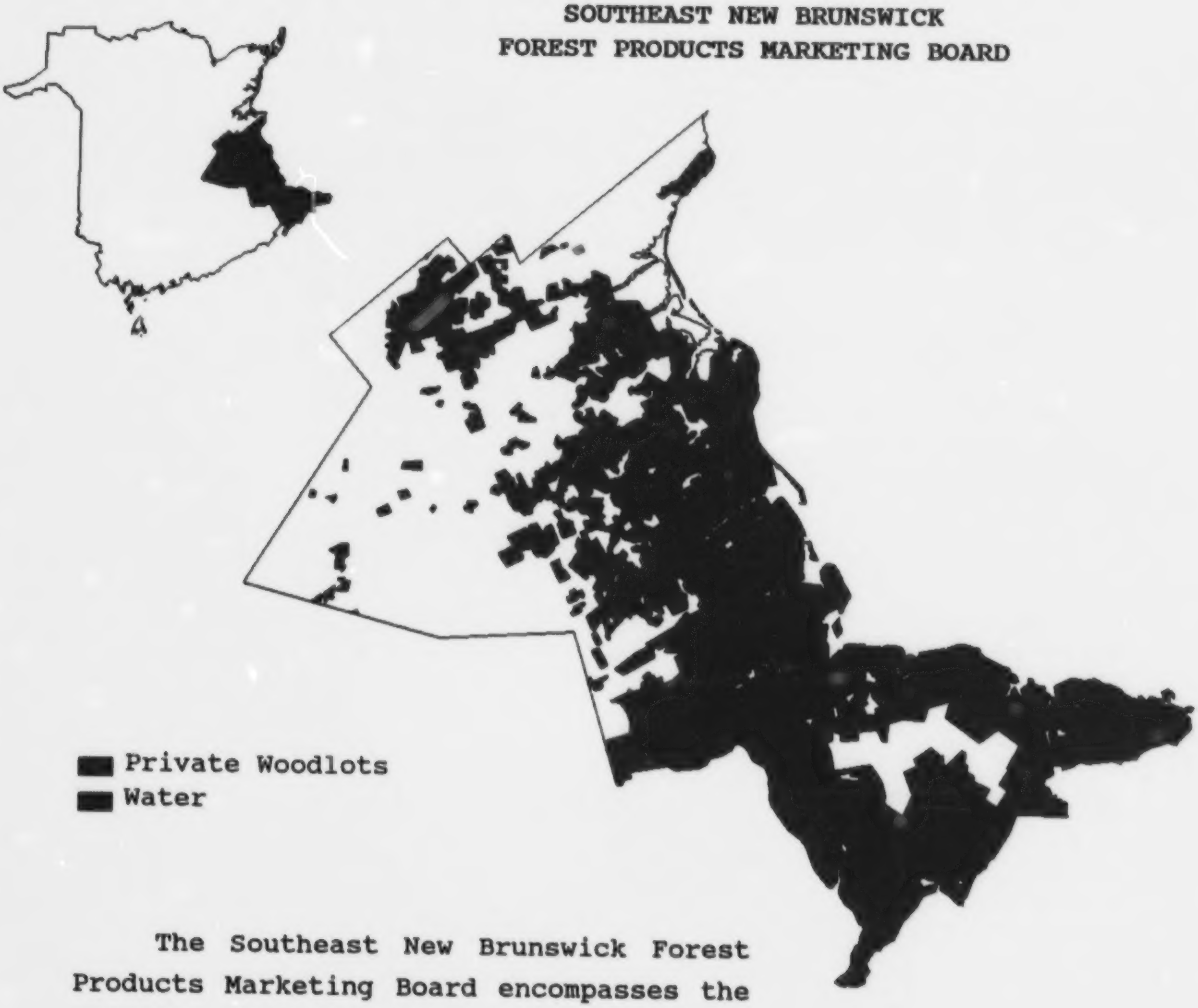
Table YSC8. Gross merchantable volume (m3) by species and DBH class (cm) on the York-Sunbury-Charlotte Forest Products Marketing Board Zone.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	1067137	2889003	2585874	6542014	21.28
Balsam Fir	1431275	2744786	730735	4906796	15.96
Jack Pine	0	12288	0	12288	.04
Red Pine	0	0	24802	24802	.08
White Pine	27314	84980	579682	691976	2.25
Cedar	655411	2204853	1546261	4406525	14.33
Hemlock	99582	404367	893228	1397177	4.54
Larch	71808	241274	290103	603185	1.96
TOTAL SOFTWOOD	3352527	8581551	6650685	18584763	60.45
Red Maple	1014223	1691411	967412	3673046	11.95
Sugar Maple	185215	431205	619314	1235734	4.02
Yellow Birch	150666	391732	427892	970290	3.16
Beech	222384	470760	297475	990619	3.22
Other Tolerant	47150	53046	44204	144400	.47
Total Tolerant	1619638	3038154	2356297	7014089	22.82
White Birch	350997	742734	488888	1582619	5.15
Poplar	306002	1233474	1261866	2801342	9.11
Other Intolerant	335652	259766	163448	758866	2.47
Total Intolerant	992651	2235974	1914202	5142827	16.73
TOTAL HARDWOOD	2612289	5274128	4270499	12156916	39.55
TOTAL ALL SPECIES	5964816	13855679	10 21184	30741679	100.00
PERCENT	19.40	45.07	35.53	100.00	

Figure YSC5. Volume by species class and DBH class.



SOUTHEAST NEW BRUNSWICK FOREST PRODUCTS MARKETING BOARD



The Southeast New Brunswick Forest Products Marketing Board encompasses the private woodlots within the Rogersville Parish of Nortumberland County, Kent County and Westmorland County (excluding the parish of Salisbury). Approximately 45 percent of the private woodlots is covered by a coniferous forest, predominantly of spruce, 36 percent is mixed-wood and 19 percent is covered by a deciduous forest. Approximately 49 percent of the productive forest land is in the immature-old development stage. Spruce makes up 39 percent of the total merchantable volume on the woodlots. Other predominant species by merchantable volume include balsam fir, red maple, poplar, white birch, larch, cedar, jack pine, white pine, hemlock, sugar maple and yellow birch. Approximately 49 percent of the merchantable volume is in the 16-24 cm DBH size class, 27 percent is in the 10-14 cm DBH range and 24 percent is in the 26+ cm DBH class.

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Table SENB4. Area (ha) by cover type, forest unit and development stage on the Southeast New Brunswick Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	11028	8634	47872	15466	117	83117	34.53
	BFSP	3026	1068	2367	1372	76	7909	3.29
	PINE	330	1675	1933	477	0	4415	1.83
	PSSP	50	192	849	1201	0	2292	.95
	OTSW	686	2977	4059	3559	49	11330	4.71
	TOTAL	15120	14546	57080	22075	242	109063	45.31
SH	SPTH	574	1796	13828	4906	32	21136	8.78
	SPIH	701	1835	8932	1548	0	13016	5.40
	BFTH	591	969	2824	919	13	5316	2.21
	BFIH	286	352	1892	471	3	3004	1.25
	TOTAL	2152	4952	27476	7844	48	42472	17.64
HS	THSP	271	2177	11143	4082	42	17715	7.36
	IHSP	501	1555	12818	3043	53	17970	7.47
	THBF	219	689	2094	819	0	3821	1.59
	IHBF	311	412	3039	1076	11	4849	2.01
	TOTAL	1302	4833	29094	9020	106	44355	18.43
H	TOHW	163	1057	3021	1398	16	5655	2.35
	THIH	215	582	3321	1141	6	5265	2.18
	INHW	1122	1511	18181	4207	397	25418	10.56
	IHTH	484	478	5370	2096	63	8491	3.53
	TOTAL	1984	3628	29893	8842	482	44829	18.62
ALL COVER TYPES	TOTAL	20558	27959	143543	47781	878	240719	100.00
ALL COVER TYPES	PERCENT	8.54	11.61	59.63	19.85	.37	100.00	

Figure SENB3. Area by cover type and development stage.

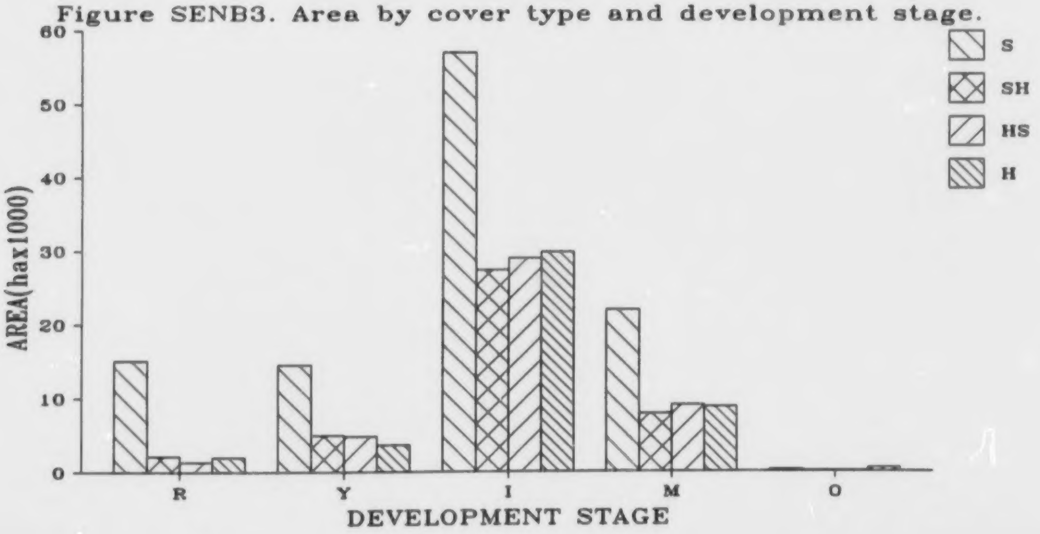


Table SENB5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Southeast New Brunswick Forest Products Marketing Board Zone.

COVER	FOREST	SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
TYPE	UNIT	CLASS	Young	Immature	Mature	Overmature		
S	SPBF	SW	670242	4928055	1714387	12965	7325649	32.32
		HW	101633	720334	175960	1328	999255	4.41
	BFSP	SW	65573	152076	70245	5538	293432	1.29
		HW	14951	39939	25928	3059	83877	.37
	PINE	SW	168335	273294	75920	0	517549	2.28
		HW	8513	14718	4212	0	27443	.12
	PSSP	SW	6048	26741	61969	0	94758	.42
		HW	384	1697	960	0	3041	.01
	OTSW	SW	262515	392784	359729	4050	1019078	4.50
		HW	21378	54638	60774	358	137148	.60
SH	SPTH	SW	119185	959661	365845	2385	1447076	6.38
		HW	34774	444427	210720	1371	691292	3.05
	SPIH	SW	120440	534072	89589	0	744101	3.28
		HW	22018	355124	69272	0	446414	1.97
	BFTH	SW	41342	165201	71526	1009	279078	1.23
		HW	22448	106603	34152	479	163682	.72
	BFIH	SW	23184	122269	23954	149	169556	.75
		HW	5160	54631	20681	129	80601	.36
HS	THSP	SW	106451	484604	223534	2298	816887	3.60
		HW	89036	551689	236169	2426	879320	3.88
	IHSP	SW	62975	606003	147583	2567	819128	3.61
		HW	53646	685995	173258	3016	915915	4.04
	THBF	SW	38667	97997	17198	0	153862	.68
		HW	31003	112444	58145	0	201592	.89
	IHBF	SW	25750	108020	49800	507	184077	.81
		HW	14214	166314	50261	512	231301	1.02
H	TOHW	SW	18497	63671	18373	210	100751	.44
		HW	91428	231917	163563	1869	488777	2.16
	THIH	SW	18236	115995	40315	211	174757	.77
		HW	40934	205661	93181	488	340264	1.50
	INHW	SW	17914	394436	148570	19518	580438	2.56
		HW	42952	1099947	328806	40545	1512250	6.67
	INTH	SW	1555	157192	69616	2090	230453	1.02
		HW	11759	359789	140579	4222	516349	2.28

Table SENB5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Southeast New Brunswick Forest Products Marketing Board Zone.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	1172713	5772950	2282250	22553	9250466	40.81
	HW	146859	831326	267834	4745	1250764	5.52
	TOTAL	1319572	6604276	2550084	27298	10501230	46.32
SH	SW	304151	1781203	550914	3543	2639811	11.64
	HW	84400	960785	334825	1979	1381989	6.10
	TOTAL	388551	2741988	885739	5522	4021800	17.74
HS	SW	233843	1296624	438115	5372	1973954	8.71
	HW	187899	1516442	517833	5954	2228128	9.83
	TOTAL	421742	2813066	955948	11326	4202082	18.54
H	SW	56202	731294	276874	22029	1086399	4.79
	HW	187073	1897314	726129	47124	2857640	12.61
	TOTAL	243275	2628608	1003003	69153	3944039	17.40
ALL COVER TYPES	SW	1766909	9582071	3548153	53497	14950630	65.95
	HW	606231	5205867	1846621	59802	7718521	34.05
	TOTAL	2373140	14787938	5394774	113299	22669151	100.00
ALL COVER TYPES (%)	SW	7.79	42.27	15.65	.24	65.95	
	HW	2.67	22.96	8.15	.26	34.05	
	TOTAL	10.47	65.23	23.80	.50	100.00	

Table SENB6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Southeast N.B. Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	78	103	111	111	102
		HW	12	15	11	11	14
	BFSP	SW	61	64	51	73	60
		HW	14	17	19	40	17
	PINE	SW	100	141	159	0	127
		HW	5	8	9	0	7
	PSSP	SW	32	31	52	0	42
		HW	2	2	1	0	1
	OTSW	SW	88	97	101	83	96
		HW	7	13	17	7	13
SH	SPTH	SW	66	69	75	75	70
		HW	19	32	43	43	34
	SPIH	SW	66	60	58	0	60
		HW	12	40	45	0	36
	BFTH	SW	43	58	78	78	59
		HW	23	38	37	37	35
	BFIH	SW	66	65	51	50	62
		HW	15	29	44	43	30
HS	THSP	SW	49	43	55	55	47
		HW	41	50	58	58	50
	IHSP	SW	40	47	48	48	47
		HW	34	54	57	57	52
	THBF	SW	56	47	21	0	43
		HW	45	54	71	0	56
	IHBF	SW	63	36	46	46	41
		HW	35	55	47	47	51
H	TOHW	SW	17	21	13	13	18
		HW	86	77	117	117	89
	THIH	SW	31	35	35	35	35
		HW	70	62	82	81	67
	INHW	SW	12	22	35	49	24
		HW	28	60	78	102	62
	INTH	SW	3	29	33	33	29
		HW	25	67	67	67	64

Table SENB7. Gross merchantable volume (m3) by species and development stage on the Southeast New Brunswick Forest Products Marketing Board Zone.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	865674	5714547	2209667	32339	8822227	38.92
Balsam Fir	295248	2250090	630848	11950	3188136	14.06
Jack Pine	163352	346485	33193	266	543296	2.40
Red Pine	7224	3114	2070	1094	13502	.06
White Pine	91859	279135	148397	2237	521628	2.30
Cedar	50807	233511	336573	3825	624716	2.76
Hemlock	29986	182860	133784	1474	348104	1.54
Larch	262759	572329	53621	312	889021	3.92
TOTAL SOFTWOOD	1766909	9582071	3548153	53497	14950630	65.95
Red Maple	215337	1827181	892771	18174	2953463	13.03
Sugar Maple	10617	146140	116345	1238	274340	1.21
Yellow Birch	7465	147372	77065	760	232662	1.03
Beech	29879	39375	16610	246	86110	.38
Other Tolerant	551	5012	1224	12	6799	.03
Total Tolerant	263849	2165080	1104015	20430	3553374	15.67
White Birch	105580	626046	247650	5092	984368	4.34
Poplar	204636	2122389	423544	33588	2784157	12.28
Other Intolerant	32166	292352	71412	692	396622	1.75
Total Intolerant	342382	3040787	742606	39372	4165147	18.37
TOTAL HARDWOOD	606231	5205867	1846621	59802	7718521	34.05
TOTAL ALL SPECIES	2373140	14787938	5394774	113299	22669151	100.00
PERCENT	10.47	65.23	23.80	.50	100.00	

Figure SENB4a. Total volume by species class and development.

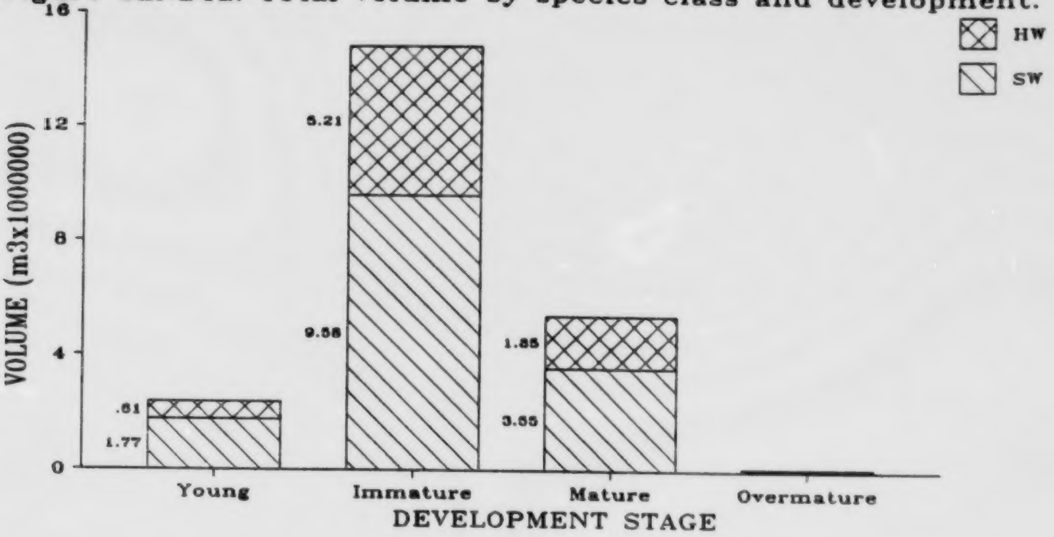


Figure SENB4b. Volume per ha by species class and development

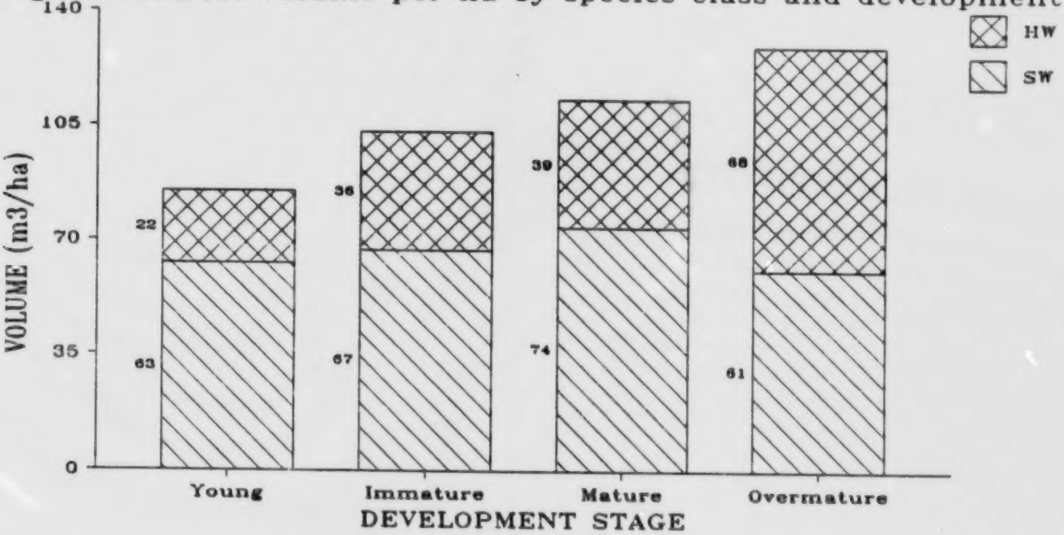


Figure SENB4c. Total area (hax1000) by development stage.

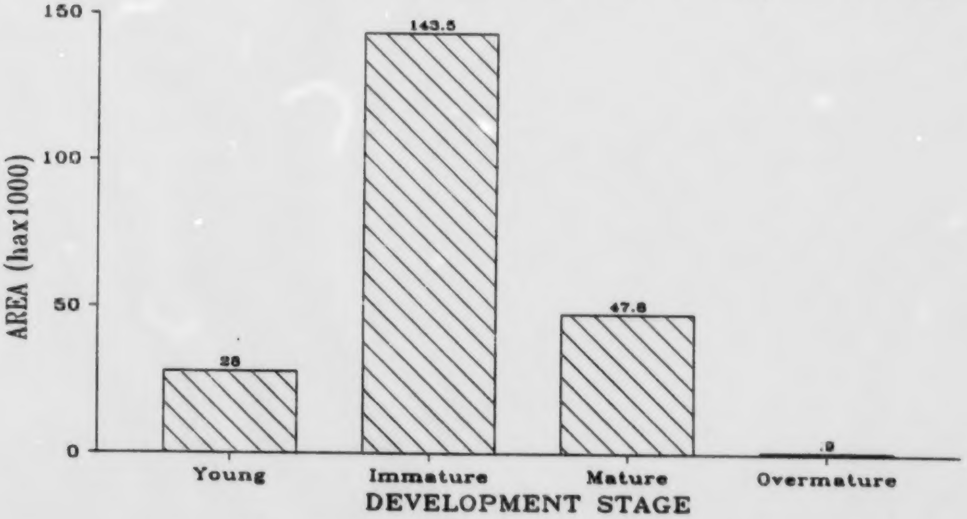
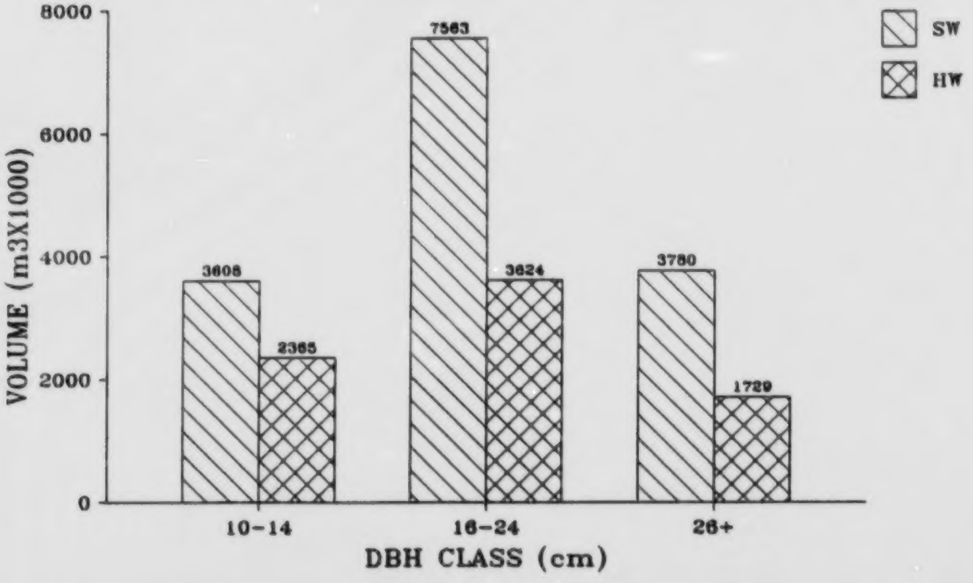


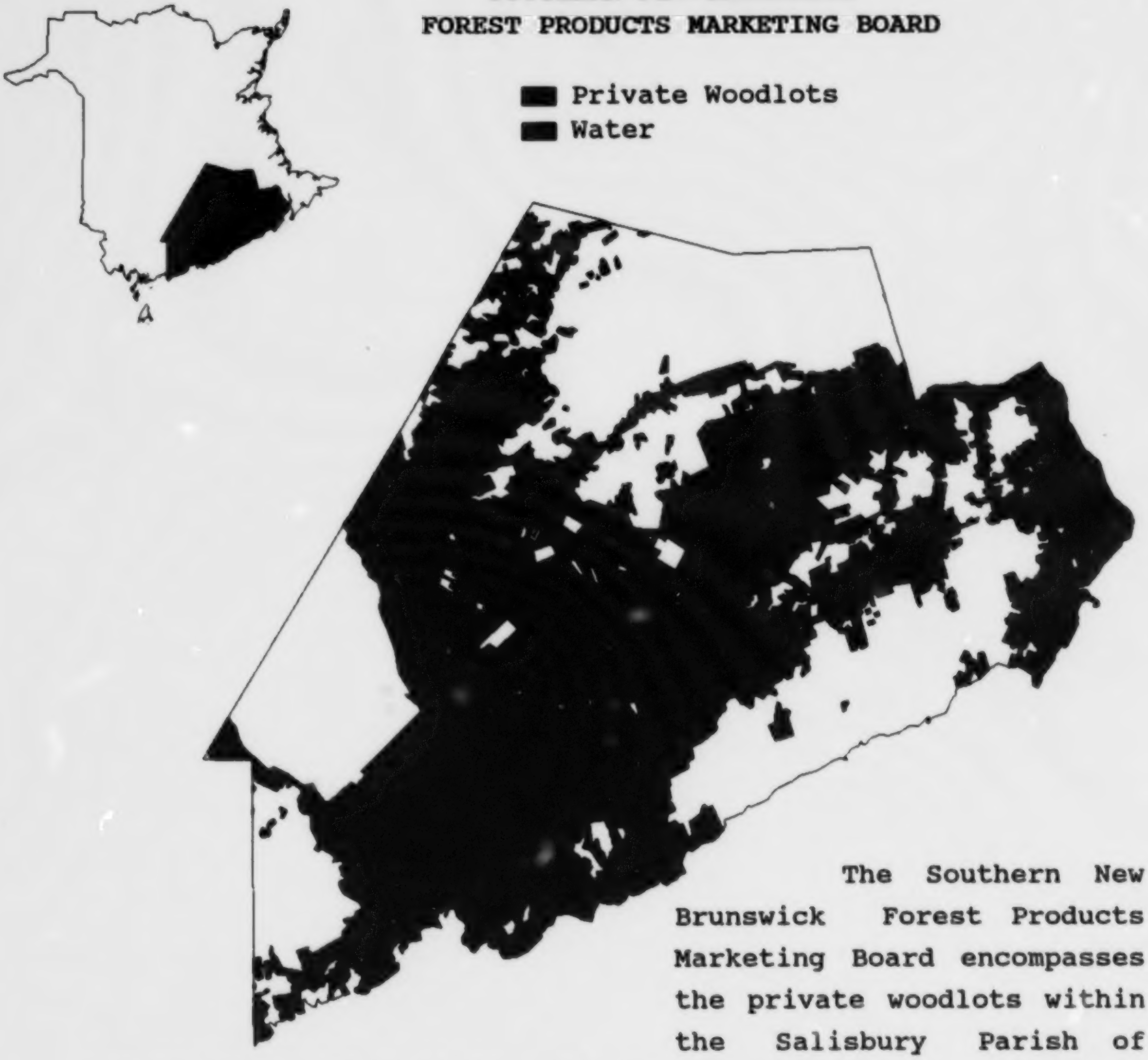
Table SENB8. Gross merchantable volume (m3) by species and DBH class (cm) on the Southeast New Brunswick Forest Products Marketing Board Zone.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	1929019	4523527	2369681	8822227	38.92
Balsam Fir	1199475	1697200	291461	3188136	14.06
Jack Pine	128548	305604	109144	543296	2.40
Red Pine	0	1929	11573	13502	.06
White Pine	28021	96997	396610	521628	2.30
Cedar	134325	370992	119399	624716	2.76
Hemlock	23053	119877	205174	348104	1.54
Larch	165558	446778	276685	889021	3.92
TOTAL SOFTWOOD	3607999	7562904	3779727	14950630	65.95
Red Maple	1054166	1364347	534950	2953463	13.03
Sugar Maple	40407	89320	144613	274340	1.21
Yellow Birch	56535	100023	76104	232662	1.03
Beech	24927	40789	20394	86110	.38
Other Tolerant	4533	0	2266	6799	.03
Total Tolerant	1180568	1594479	778327	3553374	15.67
White Birch	359852	492184	132332	984368	4.34
Poplar	551487	1423661	809009	2784157	12.28
Other Intolerant	273532	113972	9118	396622	1.75
Total Intolerant	1184871	2029817	950459	4165147	18.37
TOTAL HARDWOOD	2365439	3624296	1728786	7718521	34.05
TOTAL ALL SPECIES	5973438	11187200	5508513	22669151	100.00
PERCENT	26.35	49.35	24.30	100.00	

Figure SENB5. Volume by species class and DBH class.



SOUTHERN NEW BRUNSWICK
FOREST PRODUCTS MARKETING BOARD



The Southern New Brunswick Forest Products Marketing Board encompasses the private woodlots within the Salisbury Parish of Westmorland County along with Queens, Kings, Saint John, and Albert Counties. Approximately 36 percent of the private woodlots is covered by a coniferous forest, predominantly of spruce and balsam fir, 33 percent is mixed-wood and 31 percent is covered by a deciduous forest. Approximately 66 percent of the productive forest land is in the immature-old and mature development stages. Spruce and balsam fir make up 41 percent of the total merchantable volume on the woodlots. Other predominant species by merchantable volume include poplar, red maple, white birch, cedar, sugar maple, yellow birch, white pine, beech, hemlock, larch and jack pine. Approximately 46 percent of the merchantable volume is in the 16-24 cm DBH size class, 32 percent is in the 26+ cm DBH range and 22 percent is in the 10-14 cm DBH class.

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Table SNB4. Area (ha) by cover type, forest unit and development stage on the Southern New Brunswick Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	Regenerating	Young	DEVELOPMENT Immature	STAGE Mature	Overmature	TOTAL Overmature	PERCENT
S	SPBF	9889	6589	48226	22712	71	87487	24.31
	BFSP	13267	2279	3934	1009	221	20710	5.76
	PINE	218	390	3029	788	0	4425	1.23
	PSSP	27	120	358	1052	3	1560	.43
	OTSW	422	856	5235	6755	254	13522	3.76
	TOTAL	23823	10234	60782	32316	549	127704	35.49
SH	SPTH	371	232	9113	7516	27	17259	4.80
	SPIH	682	590	14413	8715	20	24420	6.78
	BFTH	1052	308	1534	648	8	3550	.99
	BFIH	3839	1246	3449	1026	6	9566	2.66
	TOTAL	5944	2376	28509	17905	61	54795	15.22
HS	THSP	426	245	9282	7280	22	17255	4.80
	IHSP	954	527	15567	14319	64	31431	8.74
	THBF	601	137	2065	744	0	3547	.99
	IHBF	4082	1733	4633	2109	14	12571	3.49
	TOTAL	6063	2642	31547	24452	100	64804	18.01
H	TOHW	760	905	20169	11253	53	33140	9.21
	THIH	1168	501	9458	4959	26	16112	4.47
	INHW	5153	1096	17016	18158	1398	42821	11.90
	IHTH	1613	603	8770	9364	84	20434	5.68
	TOTAL	8694	3105	55413	43734	1561	112507	31.26
ALL COVER TYPES	TOTAL	44524	18357	176251	118407	2271	359810	100.00
ALL COVER TYPES	PERCENT	12.37	5.10	48.98	32.91	.64	100.00	

Figure SNB3. Area by cover type and development stage.

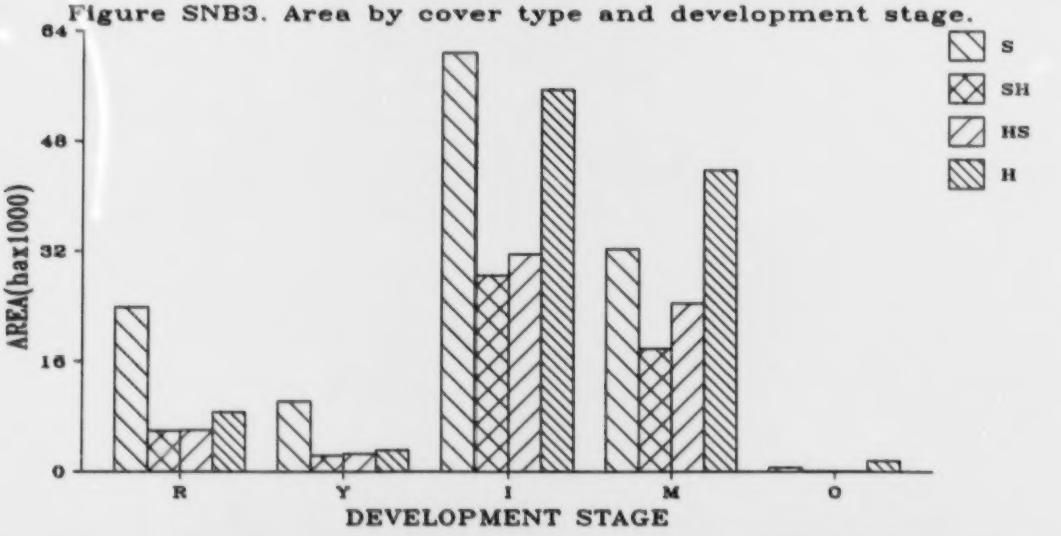


Table SNB5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on the Southern New Brunswick Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	509705	4840929	2440479	7624	7798737	23.19
		HW	22118	648258	334603	1043	1006022	2.99
	BFSP	SW	131990	330295	62892	16111	541288	1.61
		HW	19370	62036	10762	8898	101066	.30
	PINE	SW	46227	462720	73678	0	582625	1.73
		HW	1899	25477	13002	0	40378	.12
	PSSP	SW	5317	15873	65393	184	86767	.26
		HW	302	910	348	0	1560	.00
	OTSW	SW	67809	605803	1046502	20996	1741110	5.18
		HW	6363	106733	73783	1862	188741	.56
SH	SPTH	SW	15393	537171	516723	1854	1071141	3.19
		HW	4490	318705	342601	1226	667022	1.98
	SPIH	SW	33040	951931	592334	1357	1578662	4.69
		HW	11151	546564	389361	891	947967	2.82
	BFTH	SW	13139	65040	34776	428	113383	.34
		HW	7133	41723	18360	224	67440	.20
	BFIH	SW	62547	209282	42065	245	314139	.93
		HW	18938	139198	59507	347	217990	.65
HS	THSP	SW	10811	435477	295080	888	742256	2.21
		HW	10536	534487	467373	1410	1013806	3.01
	IHSP	SW	20880	766209	685188	3059	1475336	4.39
		HW	13375	673863	934975	4176	1626389	4.84
	THBF	SW	6504	57543	23312	0	87359	.26
		HW	6001	86039	48856	0	140896	.42
	IHBF	SW	63129	196899	71895	476	332399	.99
		HW	41591	270063	116183	769	428606	1.27
H	TOHW	SW	13574	164453	245956	1157	425140	1.26
		HW	78732	1905711	987046	4646	2976135	8.85
	THIH	SW	6513	192625	77435	0	276573	.82
		HW	24048	744971	337209	0	1106228	3.29
	INHW	SW	23198	414284	548461	77937	1063880	3.16
		HW	31781	1274808	1494073	149585	2950247	8.77
	INTH	SW	1962	213984	277937	2490	496373	1.48
		HW	14834	636042	760608	6818	1418302	4.22

Table SNB5a. Gross merchantable volume (m3) by cover type, species class, and development stage on the Southern New Brunswick Forest Products Marketing Board Zone.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	761048	6255620	3688944	44915	10750527	31.97
	HW	50052	843414	432498	11803	1337767	3.98
	TOTAL	811100	7099034	4121442	56718	12088294	35.95
SH	SW	124119	1763424	1185898	3884	3077325	9.15
	HW	41712	1046190	809829	2688	1900419	5.65
	TOTAL	165831	2809614	1995727	6572	4977744	14.80
HS	SW	101324	1456128	1075475	4423	2637350	7.84
	HW	71503	1564452	1567387	6355	3209697	9.55
	TOTAL	172827	3020580	2642862	10778	5847047	17.39
H	SW	45247	985346	1149789	81584	2261966	6.73
	HW	149395	4561532	3578936	161049	8450912	25.13
	TOTAL	194642	5546878	4728725	242633	10712878	31.86
ALL COVER TYPES	SW	1031738	10460518	7100106	134806	18727168	55.69
	HW	312662	8015588	6388650	181895	14898795	44.31
	TOTAL	1344400	18476106	13488756	316701	33625963	100.00
ALL COVER TYPES (%)	SW	3.07	31.11	21.11	.40	55.69	
	HW	.93	23.84	19.00	.54	44.31	
	TOTAL	4.00	54.95	40.11	.94	100.00	

Table SNB6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on the Southern N.B. Forest Products Marketing Board Zone.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	77	100	107	107	101
		HW	3	13	15	15	13
	BFSP	SW	58	84	62	73	73
		HW	8	16	11	40	14
	PINE	SW	119	153	94	0	138
		HW	5	8	17	0	10
	PSSP	SW	44	44	62	61	57
		HW	3	3	0	0	1
	OTSW	SW	79	116	155	83	133
		HW	7	20	11	7	14
SH	SPTH	SW	66	59	69	69	63
		HW	19	35	46	45	39
	SPIH	SW	56	66	68	68	67
		HW	19	38	45	45	40
	BFTH	SW	43	42	54	54	45
		HW	23	27	28	28	27
	BFIH	SW	50	61	41	41	55
		HW	15	40	58	58	38
HS	THSP	SW	44	47	41	40	44
		HW	43	58	64	64	60
	IHSP	SW	40	49	48	48	48
		HW	25	43	65	65	53
	THBF	SW	47	28	31	0	30
		HW	44	42	66	0	48
	IHBF	SW	36	42	34	34	39
		HW	24	58	55	55	50
H	TOHW	SW	15	8	22	22	13
		HW	87	94	88	88	92
	THIH	SW	13	20	16	0	19
		HW	48	79	68	0	74
	INHW	SW	21	24	30	56	28
		HW	29	75	82	107	78
	INTH	SW	3	24	30	30	26
		HW	25	73	81	81	75

Table SNB7. Gross merchantable volume (m3) by species and development stage on the Southern New Brunswick Forest Products Marketing Board Zone.

SPECIES	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
Spruce	584394	5461233	3544779	71716	9662122	28.73
Balsam Fir	264153	2349112	1384905	28710	4026880	11.98
Jack Pine	25517	361603	156699	232	544051	1.62
Red Pine	8139	77723	27989	4958	118809	.35
White Pine	17353	574780	371758	7418	971309	2.89
Cedar	49062	1014266	1120313	18780	2202421	6.55
Hemlock	5030	257059	362044	2665	626798	1.86
Larch	78090	364742	131619	327	574778	1.71
TOTAL SOFTWOOD	1031738	10460518	7100106	134806	18727168	55.69
Red Maple	50821	1879095	1779382	39377	3748675	11.15
Sugar Maple	34688	1007491	333898	1448	1377525	4.10
Yellow Birch	19604	603983	521497	2106	1147190	3.41
Beech	37315	491894	185121	806	715136	2.13
Other Tolerant	999	60985	18670	159	80813	.24
Total Tolerant	143427	4043448	2838568	43896	7069339	21.02
White Birch	110105	1604408	1507413	16188	3238114	9.63
Poplar	49678	1790918	1866081	120303	3826980	11.38
Other Intolerant	9452	576814	176588	1508	764362	2.27
Total Intolerant	169235	3972140	3550082	137999	7829456	23.28
TOTAL HARDWOOD	312662	8015588	6388650	181895	14898795	44.31
TOTAL ALL SPECIES	1344400	18476106	13488756	316701	33625963	100.00
PERCENT	4.00	54.95	40.11	.94	100.00	

Figure SNB4a. Total volume by species class and development.

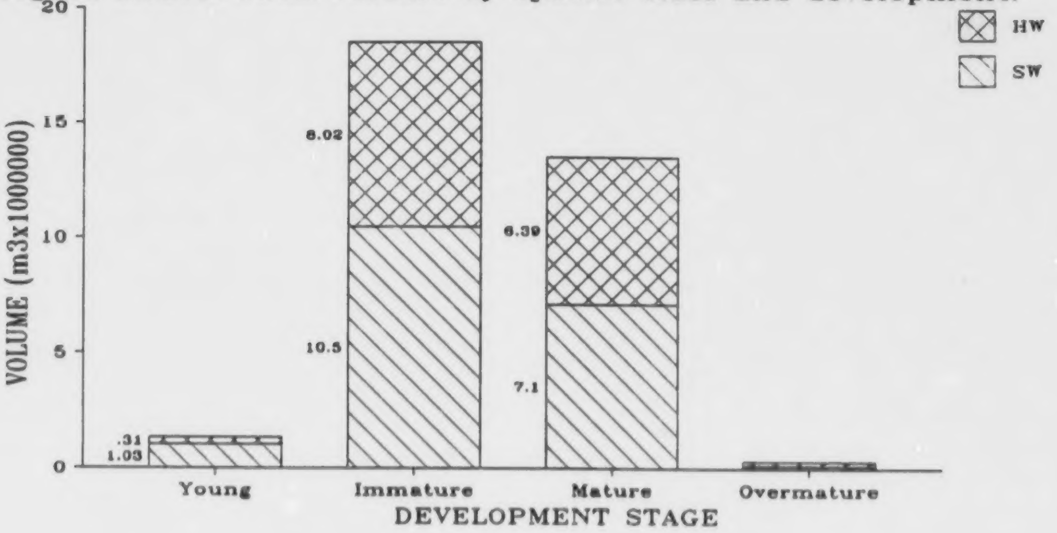


Figure SNB4b. Volume per ha by species class and development.

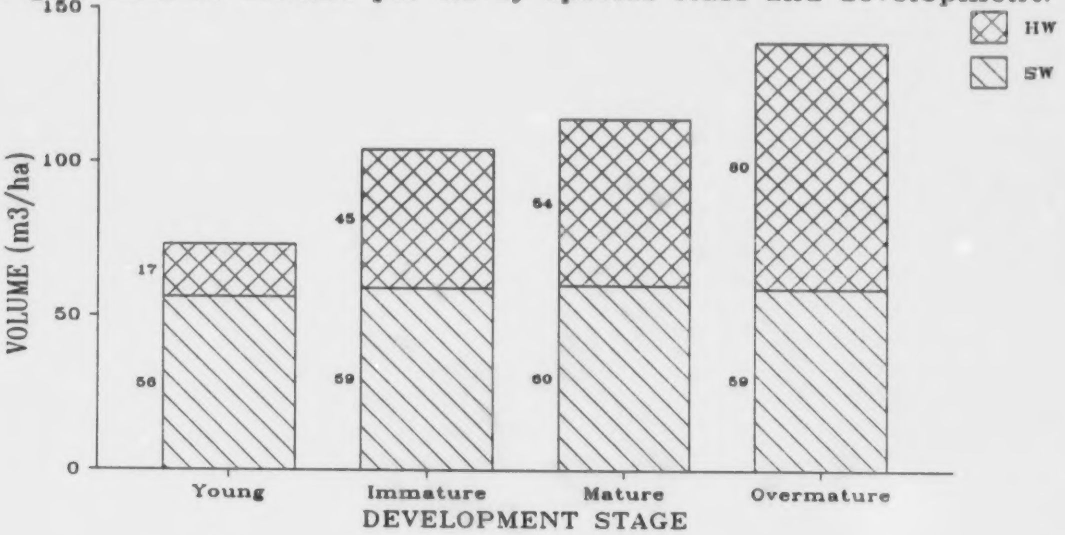


Figure SNB4c. Total area (hax1000) by development stage.

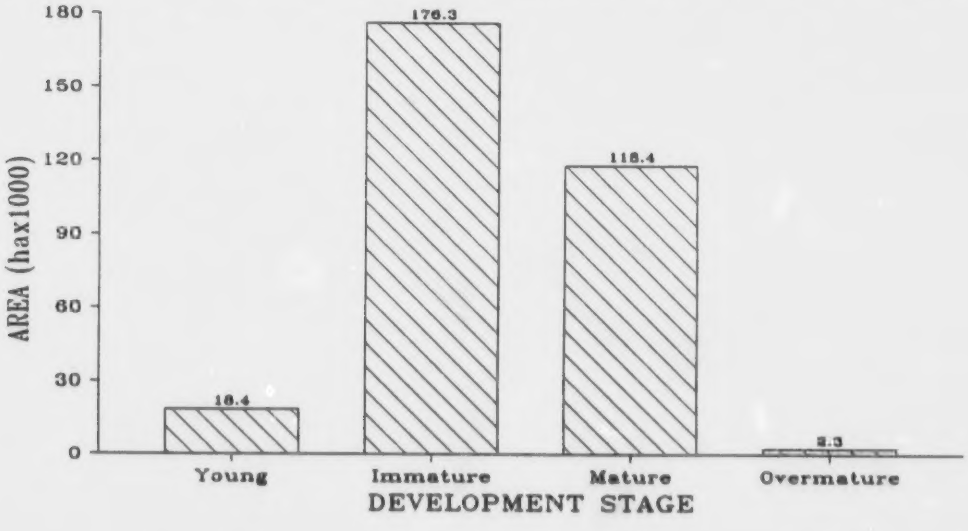
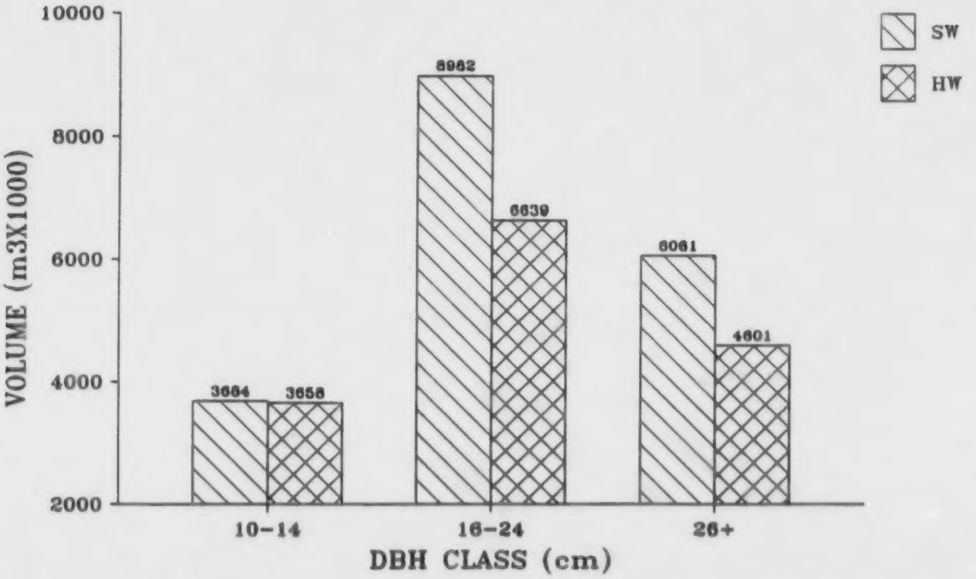


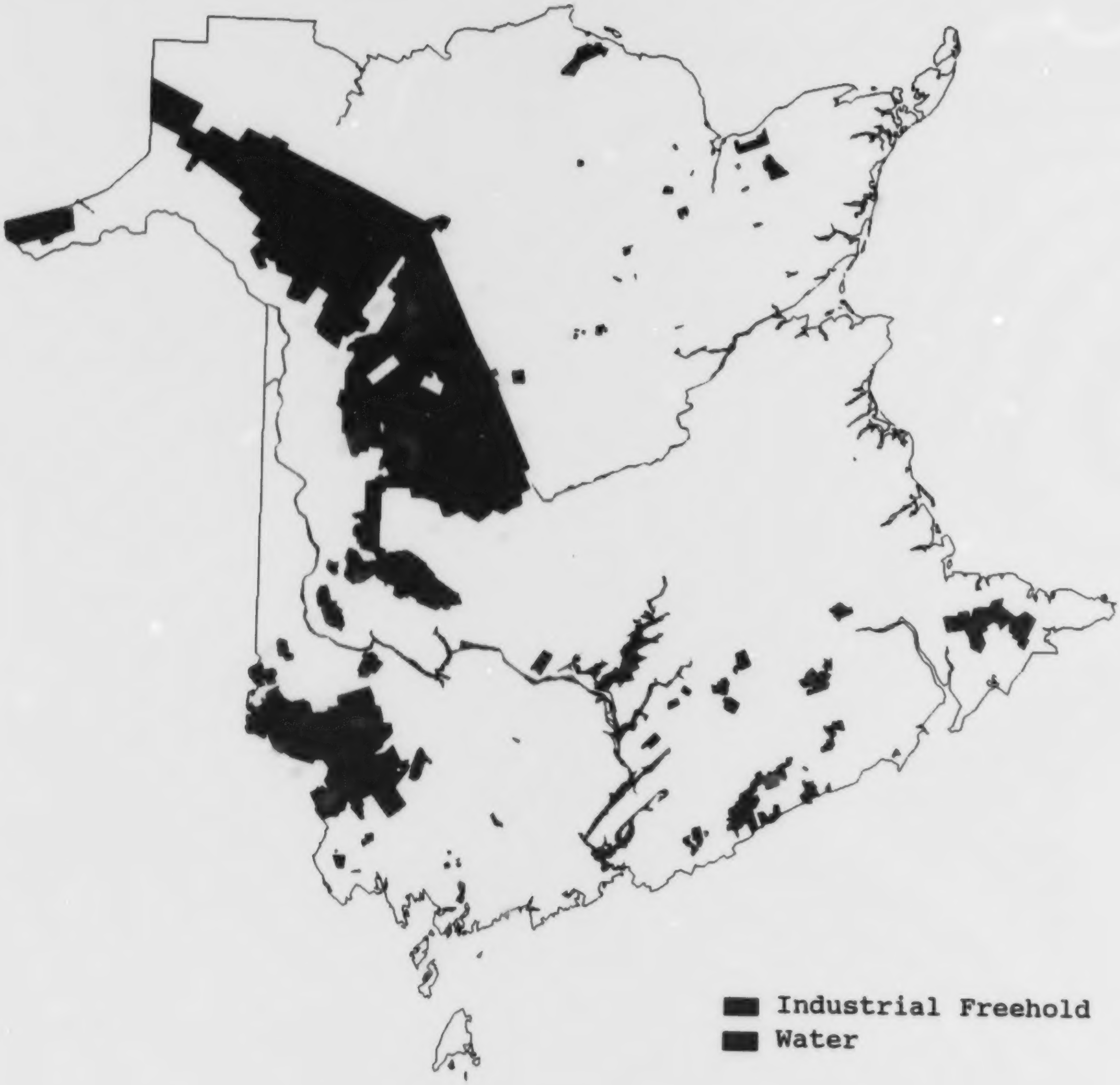
Table SNB8. Gross merchantable volume (m3) by species and DBH class (cm) on the Southern New Brunswick Forest Products Marketing Board Zone.

SPECIES	DBH CLASS			TOTAL	PERCENT
	10-14	16-24	26+		
Spruce	1595241	4678254	3388627	9662122	28.73
Balsam Fir	1489260	2070594	467026	4026880	11.98
Jack Pine	65012	325062	153977	544051	1.62
Red Pine	6789	33945	78075	118809	.35
White Pine	42803	233773	694733	971309	2.89
Cedar	356874	1172585	672962	2202421	6.55
Hemlock	41102	205507	380189	626798	1.86
Larch	87393	262179	225206	574778	1.71
TOTAL SOFTWOOD	3684474	8981899	6060795	18727168	55.69
Red Maple	1096505	1761260	890910	3748675	11.15
Sugar Maple	284305	497534	595686	1377525	4.10
Yellow Birch	153186	432324	561680	1147190	3.41
Beech	207189	327492	180455	715136	2.13
Other Tolerant	22628	45255	12930	80813	.24
Total Tolerant	1763813	3063865	2241661	7069339	21.02
White Birch	928577	1632663	676874	3238114	9.63
Poplar	515692	1696356	1614932	3826980	11.38
Other Intolerant	450197	246150	68015	764362	2.27
Total Intolerant	1894466	3575169	2359821	7829456	23.28
TOTAL HARDWOOD	3658279	6639034	4601482	14898795	44.31
TOTAL ALL SPECIES	7342753	15620933	10662277	33625963	100.00
PERCENT	21.84	46.45	31.71	100.00	

Figure SNB5. Volume by species class and DBH class.



INDUSTRIAL FREEHOLD



Inventory information for Industrial Freehold will be reported by the following sections:

LICENSEE INDUSTRIAL FREEHOLD (IFLIC)	- Land privately owned by the ten Crown Timber Licensees.
SUB-LICENSEE INDUSTRIAL FREEHOLD (IFSUB)	- Land privately owned by companies or individuals allocated wood from a a Crown Timber License.
OTHER INDUSTRIAL FREEHOLD (IFOTH)	- Land privately owned by companies with no wood allocated from a Crown Timber License.

INDUSTRIAL FREEHOLD LAND SUMMARY

Area and volume information for New Brunswick's Industrial Freehold Land is divided into three sections: 1) Industrial Freehold owned by Licensees, 2) Industrial Freehold owned by Sub-licensees and 3) Industrial Freehold owned by others who are neither Licensees nor Sub-licensees (Pejebscot and Georgia Pacific). Although total area for all Industrial Freehold Land was known, detailed stand information was only available for 77 percent of the area. This detailed area information was projected over the remaining 23 percent of the area. Average stand volume information was calculated for the northern half and southern half of the province using Crown Land data. Industrial Freehold volume calculations were based on these average estimates and their northerly or southerly location. Silvicultural information, specifically areas under plantations, is incomplete and unavailable for Industrial Freehold Land.

AREA

The total area of Industrial Freehold Land in New Brunswick is approximately 1 366 892 hectares, of which 91 percent is productive forest land, 5 percent is non-productive/wasteland, 2 percent is cleared land and 2 percent is water. There is approximately 1 248 205 hectares of productive forest land on all Industrial Freehold ranging from 76 921 hectares owned by Sub-licensees to 1 001 770 hectares owned by Licensees.

The softwood (S) cover type comprises 39 percent of all productive forest land assigned to a cover type (R - O) on Industrial Freehold Land ranging from 21 199 hectares owned by Sub-licensees to 321 009 hectares owned by Licensees. The spruce-balsam fir (SPBF) and the balsam fir-spruce (BFSP) forest units (FUNAS) represent 79 percent of this area (26 percent of total productive forest land). The hardwood (H) cover type comprises 33 percent of productive forest land assigned to a cover type on Industrial Freehold. Approximately 28 percent of productive forest land assigned to a cover type on Industrial Freehold is in a mixed-wood condition.

Approximately 47 percent of productive forest land on Industrial Freehold is in the mature and overmature development stages, 29 percent in the immature-young and-old development stages and 24 percent is in the regenerating development stage including cuts, burns and old fields.

VOLUME - softwood

The total gross merchantable volume of softwood on Industrial Freehold Land is 84 593 881 cubic metres or approximately 65 percent of the total gross merchantable volume. Spruce and balsam fir together comprise 83 percent of the gross merchantable softwood volume on Industrial Freehold Land.

The distribution of spruce-balsam fir volume is consistent across the different Industrial Freehold ownerships ranging from 46.97 cubic metres per productive hectare on land owned by Other Industrial Freehold owners to 57.90 cubic metres per productive hectare on land owned by Licensees.

The distribution of balsam fir ranges from 11.14 cubic metres per productive hectare on land owned by Other Industrial Freehold owners to 25.37 cubic metres per productive hectare on land owned by Licensees. The distribution of spruce is very consistent across all Industrial Freehold ownerships averaging 34.03 cubic metres per productive hectare.

Cedar comprises approximately 10 percent of the total gross merchantable softwood volume on Industrial Freehold and ranges from 5.93 cubic metres per productive hectare on land owned by Licensees to 11.57 cubic metres per productive hectare on land owned by Other Industrial Freehold owners.

The gross merchantable volume of white pine on Industrial Freehold Land is 2 759 412 cubic metres. The distribution of white pine is consistent across the different Industrial Freehold ownerships averaging 2.26 cubic metres per productive hectare.

The remaining gross merchantable softwood volume on Industrial Freehold Land totals 3 497 979 cubic metres. This volume is comprised of 37 percent jack pine (highest concentration being 1.30 cubic metres per reproductive hectare on land owned by Sub-licensees), 30 percent hemlock (highest concentration being 1.38 cubic metres per productive hectare on land owned by Other Industrial Freehold Owners), 27 percent larch (highest concentration being 1.19 cubic metres per productive hectare on land owned by Other Industrial Freehold Owners) and 6 percent red pine (highest concentration being 0.41 cubic metres per productive hectare on land owned by Other Industrial Freehold owners).

VOLUME - hardwood

The gross merchantable volume of hardwood on Industrial Freehold Land is 45 721 879 cubic metres or approximately 35 percent of the total gross merchantable volume. The tolerant hardwoods represent 73 percent of this volume and is comprised of 34 percent sugar maple, 31 percent red maple, 23 percent yellow birch and 12 percent beech. Other tolerant hardwood species make up less than 0.5 percent of the tolerant hardwood volume.

The distribution of red maple ranges from 7.47 cubic metres per productive hectare on land owned by Licensees to 11.99 cubic metres per productive hectare on land owned by Other Industrial Freehold owners.

The distribution of sugar maple, the more commercially valuable of the two maple species ranges from 5.53 cubic metres per productive hectare on land owned by Other Industrial Freehold owners to 9.68 cubic metres per productive hectare on land owned by Licensees.

Intolerant hardwood represent approximately 27 percent of the gross merchantable hardwood volume on Industrial Freehold Land and is comprised of 51 percent poplar, 43 percent white birch and 6 percent other intolerant hardwood species.

The gross merchantable volume of poplar ranges from 4.94 cubic metres per productive hectare on land owned by Licensees to 7.28 cubic metres per productive hectare on land owned by Sub-licensees.

The distribution of white birch ranges from a low of 4.04 cubic metres per productive hectare on land owned by Licensees to 5.94 cubic metres per productive hectare on land owned by Sub-licensees.

VOLUME - tree size

The volume of log size (26+ cm DBH) spruce on Industrial Freehold Land is 14 196 473 cubic metres and is consistently found across all Industrial Freehold ownerships averaging 11.71 cubic metres per productive hectare.

The volume of log size (26+ cm DBH) balsam fir is 5 895 338 cubic metres and ranges from 2.29 cubic metres per productive hectare on land owned by other Industrial owners to 5.21 cubic metres per productive hectare on land owned by Licensees.

The volume of log size (26+ cm DBH) cedar is 4 919 386 cubic metres ranging from 3.48 cubic metres per productive hectare on land owned by Licensees to 6.79 cubic metres per productive hectare on land owned by Other Industrial Freehold owners.

The volume of log size (26+ cm DBH) white pine is 2 320 290 cubic metres and is consistently found in small concentrations across all Industrial Freehold ownerships averaging 1.86 cubic metres per productive hectare.

The volume of log size (26+ cm DBH) of red and jack pine, hemlock and larch is 1 606 539 cubic metres per productive hectare and is scattered in various concentrations across all Industrial Freehold ownerships.

The volume of log size (26+ cm DBH) tolerant hardwoods on Industrial Freehold Land is 17 522 292 cubic metres and ranges from 12.00 cubic metres per productive hectare on land owned by Other Industrial Freehold owners to 14.40 cubic metres per productive hectare on land owned by Licensees.

The volume of log size (26+ cm DBH) intolerant hardwoods is 5 135 074 cubic metres ranging from 3.96 cubic metres per productive hectare on land owned by Licensees to 5.84 cubic metres per productive hectare on land owned by Sub-licensees.

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Table IF1. Area (ha) by land classification on Industrial Freehold.

LAND	INDUSTRIAL FREEHOLD			TOTAL
CLASSIFICATION	LICIF	SUBLICIF	OTHERIF	
FOREST LAND				
Productive	1001770	76921	169514	1248205
Non-productive	18078	1274	5075	24427
TOTAL	1019848	78195	174589	1272632
CLEARED LAND				
Cultivated	1374	506	39	1919
Occupied	16852	1059	1928	19839
TOTAL	18226	1565	1967	21758
WASTE LAND	31806	2703	11294	45803
TOTAL LAND	1069880	82463	187850	1340193
WATER	16508	582	9609	26699
TOTAL AREA	1086388	83045	197459	1366892

Figure IF1. Area distribution (%) by ownership on Freehold Land.

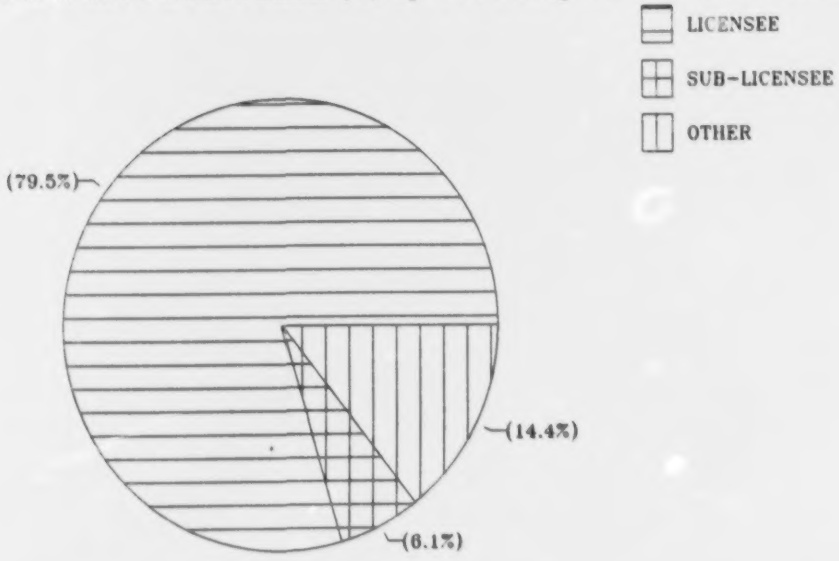

Table IF2. Productive forest land (ha) by development stage on Industrial Freehold.

DEVELOPMENT STAGE	INDUSTRIAL FREEHOLD LICIF	 SUBLICIF	 OTHERIF	TOTAL
Regenerating	75465	5075	12061	92601
Young	25700	2548	3269	31517
Immature	240861	31382	56628	328871
Mature	405917	27750	68431	502098
Overmature	87756	181	3228	91165
TOTAL	835699	66936	143617	1046252
Cuts	161216	9147	25690	196053
Burns	3178	151	115	3444
Fields	1677	687	92	2456
TOTAL	166071	9985	25897	201953
PRODUCTIVE FOREST LAND	1001770	76921	169514	1248205
Plantations		182	2346	2528

Table IF2a. Distribution of productive forest land (%) by development stage on Industrial Freehold.

DEVELOPMENT STAGE	INDUSTRIAL FREEHOLD LICIF	 SUBLICIF	 OTHERIF	TOTAL
Regenerating	6.05	.41	.97	7.42
Young	2.06	.20	.26	2.52
Immature	19.30	2.51	4.54	26.35
Mature	32.52	2.22	5.48	40.23
Overmature	7.03	.01	.26	7.30
TOTAL	66.95	5.36	11.51	83.82
Cuts	12.92	.73	2.06	15.71
Burns	.25	.01	.01	.28
Fields	.13	.06	.01	.20
TOTAL	13.30	.80	2.07	16.18
PRODUCTIVE FOREST LAND	80.26	6.16	13.58	100.00
Plantations		.01	.19	.20

Table IF3. Area (ha) by cover type and development stage on Industrial Freehold.

COVER TYPE	DEVELOPMENT STAGE	INDUSTRIAL FREEHOLD LICIF	SUBLICIF	OTHERIF	TOTAL
S	Regenerating	21112	1507	3987	26606
	Young	5569	397	566	6532
	Immature	65664	8611	16747	91022
	Mature	191042	10598	38104	239744
	Overmature	37622	86	2721	40429
	TOTAL	321009	21199	62125	404333
SH	Regenerating	5621	375	1252	7248
	Young	2090	147	278	2515
	Immature	25273	5024	7792	38089
	Mature	66625	4940	11658	83223
	Overmature	10385	6	194	10585
	TOTAL	109994	10492	21174	141660
HS	Regenerating	11990	558	2334	14882
	Young	2590	281	408	3279
	Immature	33461	6210	9231	48902
	Mature	59808	5923	7553	73284
	Overmature	11599	30	69	11698
	TOTAL	119448	13002	19595	152045
H	Regenerating	36742	2635	4488	43865
	Young	15451	1723	2017	19191
	Immature	116463	11537	22858	150858
	Mature	88442	6289	11116	105847
	Overmature	28150	59	244	28453
	TOTAL	285248	22243	40723	348214
ALL	Regenerating	75465	5075	12061	92601
	Young	25700	2548	3269	31517
	Immature	240861	31382	56628	328871
	Mature	405917	27750	68431	502098
	Overmature	87756	181	3228	91165
	TOTAL	835699	66936	143617	1046252

Table IF3a. Area distribution (%) by cover type and development stage on Industrial Freehold.

COVER TYPE	DEVELOPMENT STAGE	INDUSTRIAL FREEHOLD LICIF	SUBLICIF	OTHERIF	TOTAL
S	Regenerating	2.02	.14	.38	2.54
	Young	.53	.04	.05	.62
	Immature	6.28	.82	1.60	8.70
	Mature	18.26	1.01	3.64	22.91
	Overmature	3.60	.01	.26	3.86
	TOTAL	30.68	2.03	5.94	38.65
SH	Regenerating	.54	.04	.12	.69
	Young	.20	.01	.03	.24
	Immature	2.42	.48	.74	3.64
	Mature	6.37	.47	1.11	7.95
	Overmature	.99	.00	.02	1.01
	TOTAL	10.51	1.00	2.02	13.54
HS	Regenerating	1.15	.05	.22	1.42
	Young	.25	.03	.04	.31
	Immature	3.20	.59	.88	4.67
	Mature	5.72	.57	.72	7.00
	Overmature	1.11	.00	.01	1.12
	TOTAL	11.42	1.24	1.87	14.53
H	Regenerating	3.51	.25	.43	4.19
	Young	1.48	.16	.19	1.83
	Immature	11.13	1.10	2.18	14.42
	Mature	8.45	.60	1.06	10.12
	Overmature	2.69	.01	.02	2.72
	TOTAL	27.26	2.13	3.89	33.28
ALL	Regenerating	7.21	.49	1.15	8.85
	Young	2.46	.24	.31	3.01
	Immature	23.02	3.00	5.41	31.43
	Mature	38.80	2.65	6.54	47.99
	Overmature	8.39	.02	.31	8.71
	TOTAL	79.88	6.40	13.73	100.00

Figure IF2a. Area distribution (%) by land classification.

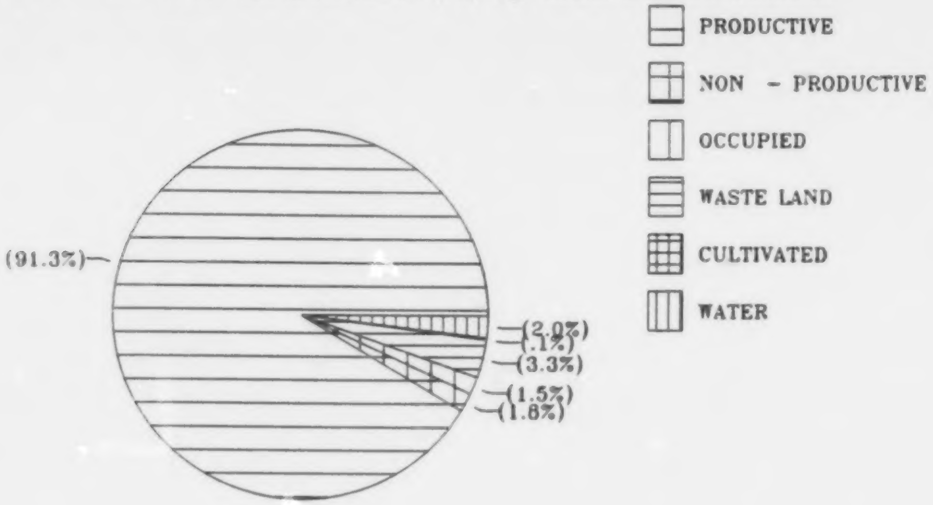

Figure IF2b. Area distribution (%) by development stage.

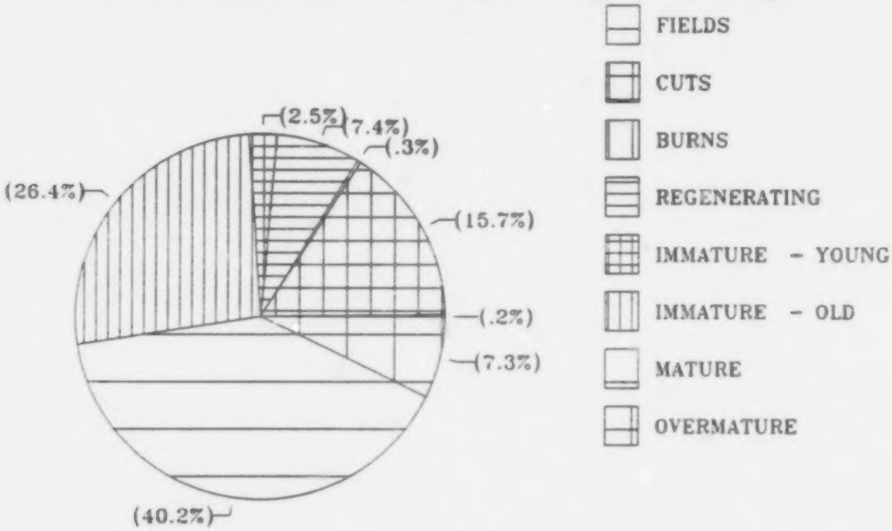

Figure IF2c. Area distribution (%) by cover type.

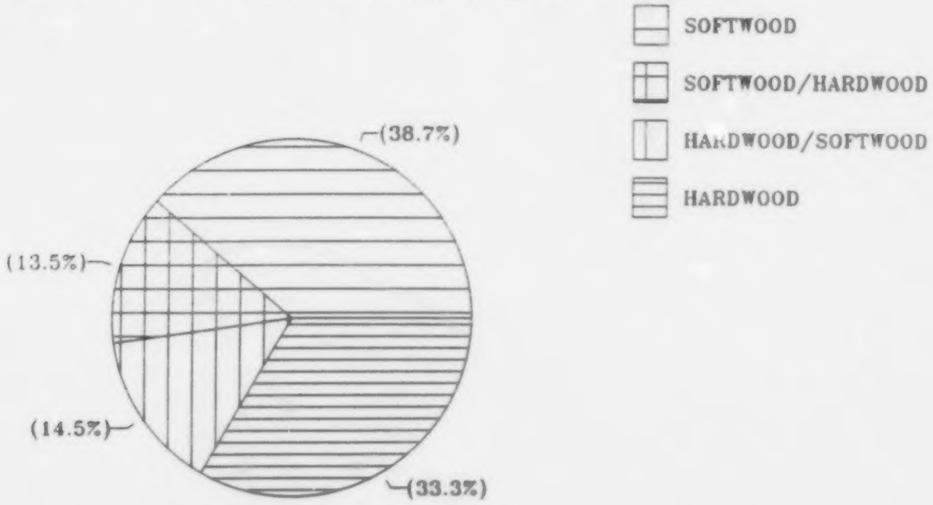

Table IF4. Area (ha) by cover type, forest unit and development stage on Industrial Freehold.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE					TOTAL	PERCENT
		Regenerating	Young	Immature	Mature	Overmature		
S	SPBF	11465	3632	68646	132955	17158	233856	22.35
	BFSP	12641	1623	12462	44822	14786	86334	8.25
	PINE	1915	799	2542	2794	16	8066	.77
	PSSP	308	47	3466	14190	3401	21412	2.05
	OTSW	277	431	3906	44983	5068	54665	5.22
	TOTAL	26606	6532	91022	239744	40429	404333	38.65
SH	SPTH	658	375	21729	47282	1536	71580	6.84
	SPIH	911	427	9073	17826	2447	30684	2.93
	BFTH	1206	329	3431	10179	3112	18257	1.74
	BFIH	4473	1384	3856	7936	3490	21139	2.02
	TOTAL	7248	2515	38089	83223	10585	141660	13.54
HS	THSP	1163	368	24039	31502	2440	59512	5.69
	INSP	2784	519	14712	18615	816	37446	3.58
	THBF	1489	556	5255	16211	6939	30450	2.91
	IHBF	9446	1836	4896	6956	1503	24637	2.35
	TOTAL	14882	3279	48902	73284	11698	152045	14.53
H	TOHW	7736	9934	112214	71318	25882	227084	21.70
	THIH	8152	1771	18059	7076	391	35449	3.39
	INHW	19972	4693	12694	18221	1855	57435	5.49
	IHTH	8005	2793	7891	9232	325	28246	2.70
	TOTAL	43865	19191	150858	105847	28453	348214	33.28
ALL COVER TYPES	TOTAL	92601	31517	328871	502098	91165	1046252	100.00
ALL COVER TYPES	PERCENT	8.85	3.01	31.43	47.99	8.71	100.00	

Figure IF3. Area by cover type and development stage.

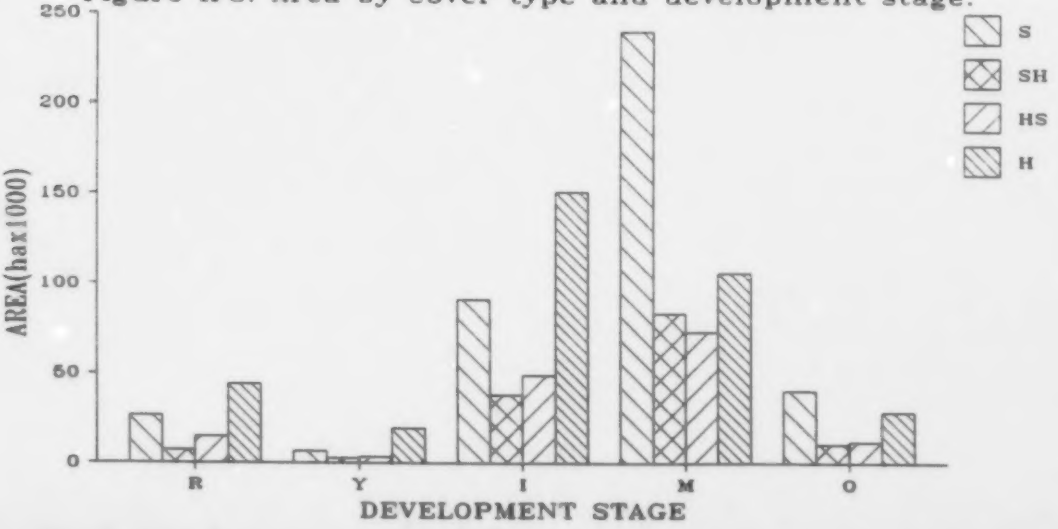

Table IF5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on Industrial Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	235877	8219399	18326223	2366116	29147615	22.37
		HW	19692	631772	1314526	179160	2145150	1.65
	BFSP	SW	130621	1572961	6755066	2168974	10627622	8.16
		HW	18946	226135	857457	256798	1359336	1.04
	PINE	SW	61360	340651	422275	1967	826253	.63
		HW	4316	16642	17837	34	38829	.03
	PSSP	SW	1620	244260	1028318	202594	1476792	1.13
		HW	58	5040	7599	0	12697	.01
	OTSW	SW	31666	446503	6303543	927742	7709454	5.92
		HW	2126	47139	531169	52913	633347	.49
SH	SPTH	SW	15317	2253639	4808150	169795	7246901	5.56
		HW	9478	807332	2188856	114223	3119889	2.39
	SPIH	SW	15623	794292	1760945	264057	2834917	2.18
		HW	8201	342832	745664	125310	1222007	.94
	BFTH	SW	24838	328005	1008127	342970	1703940	1.31
		HW	7591	129658	475574	178253	791076	.61
	BFIH	SW	88966	446657	866638	300175	1702436	1.31
		HW	16870	100818	320280	105576	543544	.42
HS	THSP	SW	23167	1867979	2481279	106560	4478985	3.44
		HW	12449	1473230	2238238	181402	3905319	3.00
	IHSP	SW	25749	900580	1400103	41367	2367799	1.82
		HW	21272	940176	1178602	59115	2199165	1.69
	THBF	SW	41167	302544	1258601	374912	1977224	1.52
		HW	22398	313057	1156480	495901	1987836	1.53
	IHBF	SW	114783	436744	450856	98124	1100507	.84
		HW	69265	249012	472704	102270	893251	.69
H	TOHW	SW	379047	3707321	2607350	1258769	7952487	6.10
		HW	741104	10184902	6590692	2758751	20275449	15.56
	THIH	SW	69229	789031	296742	16946	1171948	.90
		HW	94816	1239424	528334	27500	1890074	1.45
	INHW	SW	184107	470968	762138	135125	1552338	1.19
		HW	133267	1063086	1671255	171513	3039121	2.33
	INTH	SW	157900	317287	233171	8305	716663	.55
		HW	115563	578254	938384	33588	1665789	1.28

Table IF5a. Gross merchantable volume (m3) by cover type, species class, and development stage on Industrial Freehold.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	461144	10823774	32835425	5667393	49787736	38.21
	HW	45138	926728	2728588	488905	4189359	3.21
	TOTAL	506282	11750502	35564013	6156298	53977095	41.42
SH	SW	144744	3822593	8443860	1076997	13488194	10.35
	HW	42140	1380640	3730374	523362	5676516	4.36
	TOTAL	186884	5203233	12174234	1600359	19164710	14.71
HS	SW	204866	3507847	5590839	620963	9924515	7.62
	HW	125384	2975475	5046024	838688	8985571	6.90
	TOTAL	330250	6483322	10636863	1459651	18910086	14.51
H	SW	790283	5284607	3899401	1419145	11393436	8.74
	HW	1084750	13065666	9728665	2991352	26870433	20.62
	TOTAL	1875033	18350273	13628066	4410497	38263869	29.36
ALL COVER TYPES	SW	1601037	23438821	50769525	8784498	84593881	64.91
	HW	1297412	18348509	21233651	4842307	45721879	35.09
	TOTAL	2898449	41787330	72003176	13626805	130315760	100.00
ALL COVER TYPES (%)	SW	1.23	17.99	38.96	6.74	64.91	
	HW	1.00	14.08	16.29	3.72	35.09	
	TOTAL	2.22	32.07	55.25	10.46	100.00	

Table IF6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on Industrial Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	65	120	138	138	131
		HW	5	9	10	10	10
	BFSP	SW	80	126	151	147	144
		HW	12	18	19	17	18
	PINE	SW	77	134	151	123	134
		HW	5	7	6	2	6
	PSSP	SW	34	70	72	60	70
		HW	1	1	1	0	1
	OTSW	SW	73	114	140	183	142
		HW	5	12	12	10	12
SH	SPTH	SW	41	104	102	111	102
		HW	25	37	46	74	44
	SPIH	SW	37	88	99	108	95
		HW	19	38	42	51	41
	BFTH	SW	75	96	99	110	100
		HW	23	38	47	57	46
	BFIH	SW	64	116	109	86	102
		HW	12	26	40	30	33
HS	THSP	SW	63	78	79	44	77
		HW	34	61	71	74	67
	IHSP	SW	50	61	75	51	68
		HW	41	64	63	72	63
	THBF	SW	74	58	78	54	68
		HW	40	60	71	71	69
	IHBF	SW	63	89	65	65	72
		HW	38	51	68	68	59
H	TOHW	SW	38	33	37	49	36
		HW	75	91	92	107	92
	THIH	SW	39	44	42	43	43
		HW	54	69	75	70	69
	INHW	SW	39	37	42	73	41
		HW	28	84	92	92	81
	IHTH	SW	57	40	25	26	35
		HW	41	73	102	103	82

Table IF7. Gross merchantable volume (m3) by species and development stage on Industrial Freehold.

SPECIES	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
Spruce	598497	11677150	25711702	3263734	41251083	31.65
Balsam Fir	780599	8485709	15446394	3991950	28704652	22.03
Jack Pine	57507	571827	624219	41023	1294576	.99
Red Pine	4365	87646	108142	2451	202604	.16
White Pine	49226	1086800	1430806	192580	2759412	2.12
Cedar	68684	1105818	5980508	1225745	8380755	6.43
Hemlock	25821	225228	749961	46112	1047122	.80
Larch	16338	198643	717793	20903	953677	.73
TOTAL SOFTWOOD	1601037	23438821	50769525	8784498	84593881	64.91
Red Maple	232887	3805044	5735096	614044	10387071	7.97
Sugar Maple	275686	4901341	4230948	1792563	11200538	8.59
Yellow Birch	144999	2616954	3551368	1279239	7592560	5.83
Beech	159848	2020155	1419540	410539	4010082	3.08
Other Tolerant	2038	38558	32957	7169	80722	.06
Total Tolerant	815458	13382052	14969909	4103554	33270973	25.53
White Birch	179763	1902637	2939423	358490	5380313	4.13
Poplar	282874	2698178	3011800	312284	6305136	4.84
Other Intolerant	19317	365642	312519	67979	765457	.59
Total Intolerant	481954	4966457	6263742	738753	12450906	9.55
TOTAL HARDWOOD	1297412	18348509	21233651	4842307	45721879	35.09
TOTAL ALL SPECIES	2898449	41787330	72003176	13626805	130315760	100.00
PERCENT	2.22	32.07	55.25	10.46	100.00	

Table IF7a. Gross merchantable volume (m3) by ownership, species class and development stage on Industrial Freehold.

OWNERSHIP	SPECIES CLASS	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
LICENSEE	Softwood	1345094	17722350	41298936	8294762	68661142	52.69
	Hardwood	1016338	13418573	[illegible]	4752632	36410141	27.93
	Total	2361432	31140923	[illegible]	13047394	105071283	80.63
SUB-LICENSEE	Softwood	119370	2250515	2557387	17932	4945204	3.79
	Hardwood	137956	1683802	1356379	9332	3187469	2.45
	Total	257326	3934317	3913766	27264	8132673	6.24
OTHER	Softwood	136573	3465956	6913202	471804	10987535	8.43
	Hardwood	143118	3246134	2654674	80343	6124269	4.70
	Total	279691	6712090	9567876	552147	17111804	13.13
ALL INDUSTRIAL FREEHOLD	Softwood	1601037	23438821	50769525	8784498	84593881	64.91
	Hardwood	1297412	18348509	21233651	4842307	45721879	35.09
	Total	2898449	41787330	72003176	13626805	130315760	100.00

Figure IF4a. Total volume by species class and development.

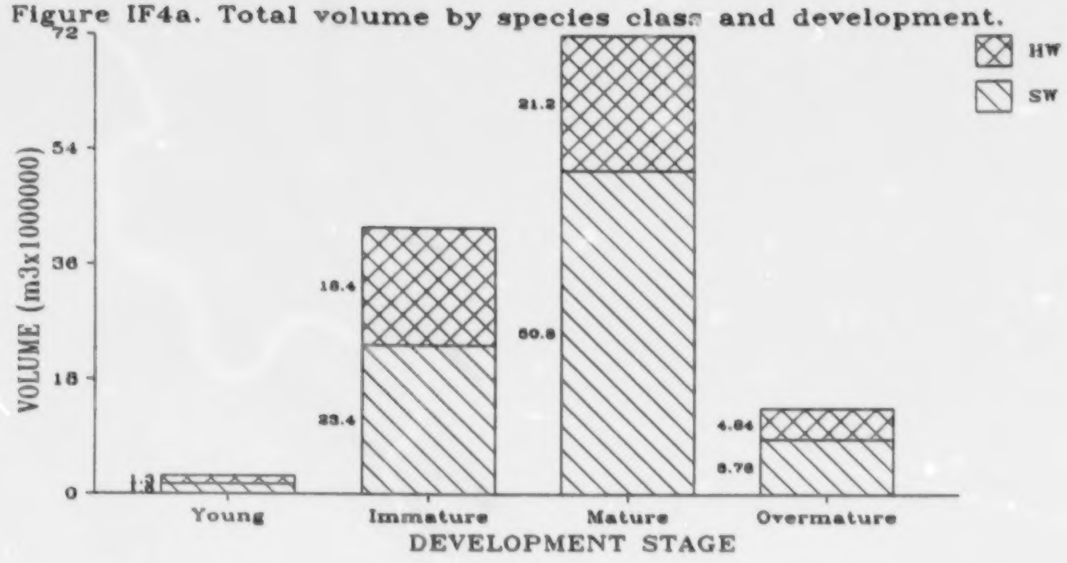

Figure IF4b. Volume per ha by species class and development.

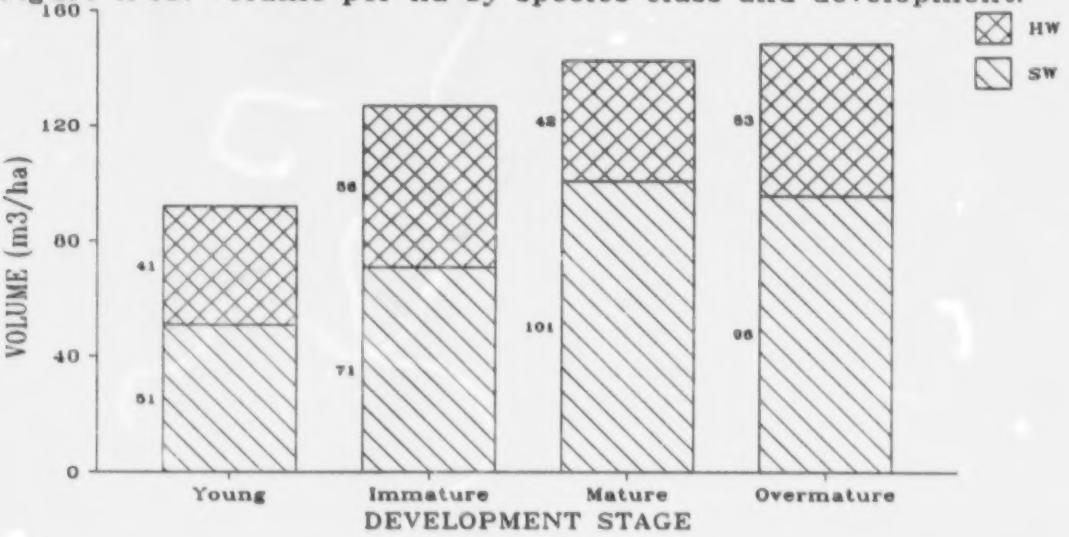

Figure IF4c. Total area (hax1000) by development stage.

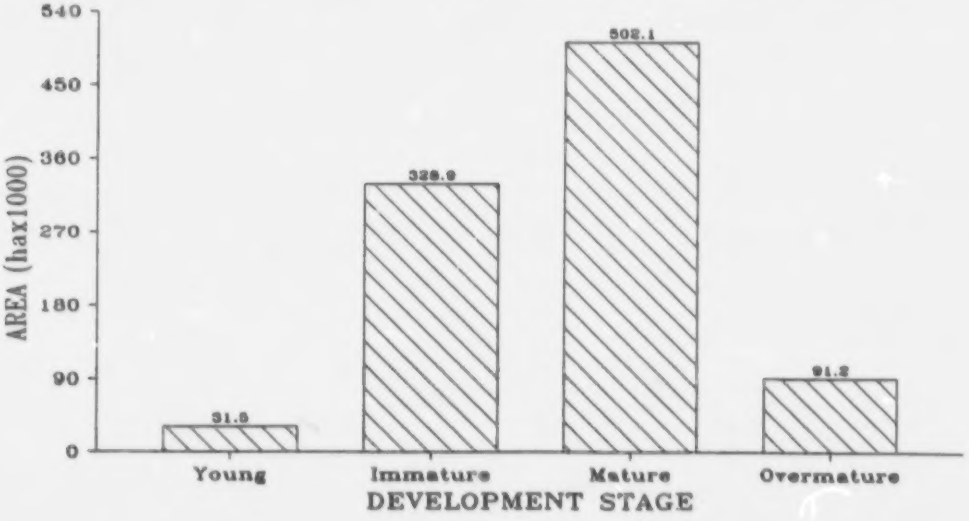

Table IF8. Gross merchantable volume (m3) by species and DBH class (cm) on Industrial Freehold.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	7635538	19419072	14196473	41251083	31.65
Balsam Fir	6768436	16040877	5895338	28704652	22.03
Jack Pine	219712	739758	335105	1294576	.99
Red Pine	6671	52519	143414	202604	.16
White Pine	89290	349832	2320290	2759412	2.12
Cedar	688441	2772928	4919386	8380755	6.43
Hemlock	31559	181559	834004	1047122	.80
Larch	211266	448395	294016	953677	.73
TOTAL SOFTWOOD	15650914	40004941	28938026	84593881	64.91
Red Maple	2233094	4502302	3651674	10387071	7.97
Sugar Maple	1346244	3054387	6799906	11200538	8.59
Yellow Birch	581428	1768993	5242140	7592560	5.83
Beech	794880	1426841	1788361	4010082	3.08
Other Tolerant	13421	27089	40211	80722	.06
Total Tolerant	4969068	10779613	17522292	33270973	25.53
White Birch	1419401	2490738	1470174	5380313	4.13
Poplar	659775	2204558	3440803	6305136	4.84
Other Intolerant	300810	240551	224096	765457	.59
Total Intolerant	2379986	4935846	5135074	12450906	9.55
TOTAL HARDWOOD	7349054	15715459	22657366	45721879	35.09
TOTAL ALL SPECIES	22999968	55720399	51595392	130315760	100.00
PERCENT	17.65	42.76	39.59	100.00	

Figure IF5. Volume by species class and DBH class.

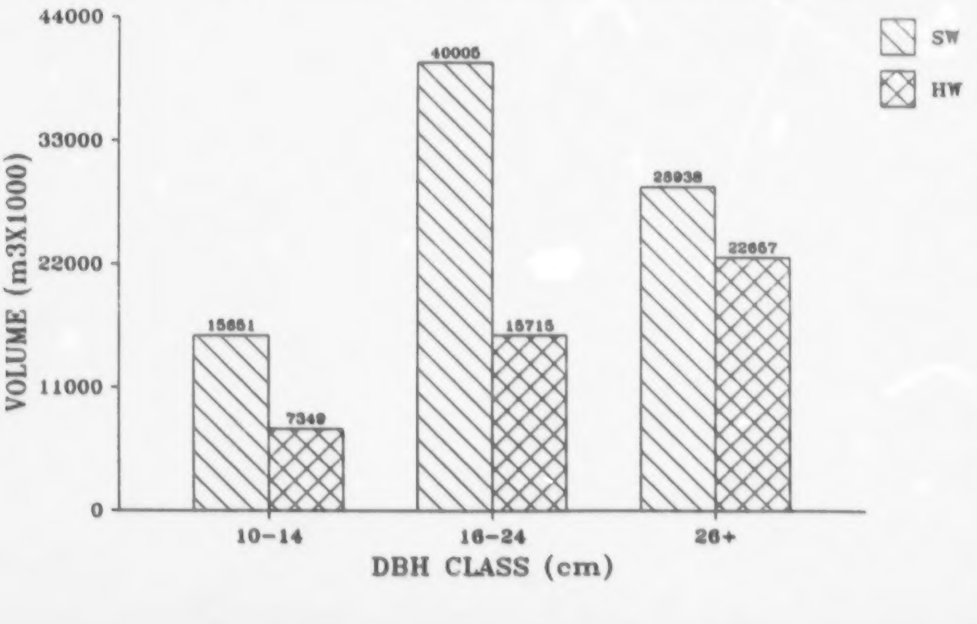

Table IF8a. Gross merchantable volume (m3) by ownership, species class and DBH class (cm) on Industrial Freehold.

OWNERSHIP	SPECIES CLASS	DBH CLASS			TOTAL	PERCENT
		10-14	16-24	26+		
LICENSEE	Softwood	12927783	32828714	22904645	68661142	52.69
	Hardwood	5706448	12314669	18389024	36410141	27.94
	Total	18634231	45143383	41293669	105071283	80.63
SUB-LICENSEE	Softwood	893481	2301232	1750491	4945204	3.79
	Hardwood	543778	1148519	1495171	3187469	2.45
	Total	1437259	3449751	3245663	8132673	6.24
OTHER	Softwood	1829649	4874995	4282890	10987535	8.43
	Hardwood	1098828	2252271	2773170	6124269	4.70
	Total	2928477	7127266	7056061	17111804	13.13
ALL INDUSTRIAL FREEHOLD	Softwood	15650914	40004941	28938027	84593881	64.91
	Hardwood	7349054	15715459	22657366	45721879	35.09
	Total	22999968	55720399	51595393	130315760	100.00

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Table IFLIC4. Area (ha) by cover type, forest unit and development stage on Licensee Industrial Freehold.

COVER TYPE	FOREST UNIT	Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
		DEVELOPMENT STAGE						
S	SPBF	9592	3174	48765	107133	16210	184874	22.12
	BFSP	9264	1335	10137	42251	14464	77451	9.27
	PINE	1763	751	1459	2008	15	5996	.72
	PSSP	307	44	3301	12692	3327	19471	2.33
	OTSW	186	265	2002	27158	3606	33217	3.97
	TOTAL	21112	5569	65664	191042	37622	321009	38.41
SH	SPTH	429	277	13097	35380	1393	50576	6.05
	SPIH	734	334	6445	14468	2408	24389	2.92
	BFTH	992	273	2289	9208	3097	15859	1.90
	BFIH	3466	1206	3442	7569	3487	19170	2.29
	TOTAL	5621	2090	25273	66625	10385	109994	13.16
HS	THSP	582	179	14742	24519	2358	42380	5.07
	IHSP	2252	392	10470	13552	804	27470	3.29
	THBF	1270	393	4340	15395	6939	28337	3.39
	IHBF	7886	1626	3909	6342	1498	21261	2.54
	TOTAL	11990	2590	33461	59808	11599	119448	14.29
H	TOHW	6455	7884	89012	63316	25839	192506	23.04
	THIH	6958	1230	12722	5618	391	26919	3.22
	INHW	16758	3805	9202	13400	1599	44764	5.36
	IHTH	6571	2532	5527	6108	321	21059	2.52
	TOTAL	36742	15451	116463	88442	28150	285248	34.13
ALL COVER TYPES	TOTAL	75465	25700	240861	405917	87756	835699	100.00
ALL COVER TYPES	PERCENT	9.03	3.08	28.82	48.57	10.50	100.00	

Figure IFLIC3. Area by cover type and development stage.

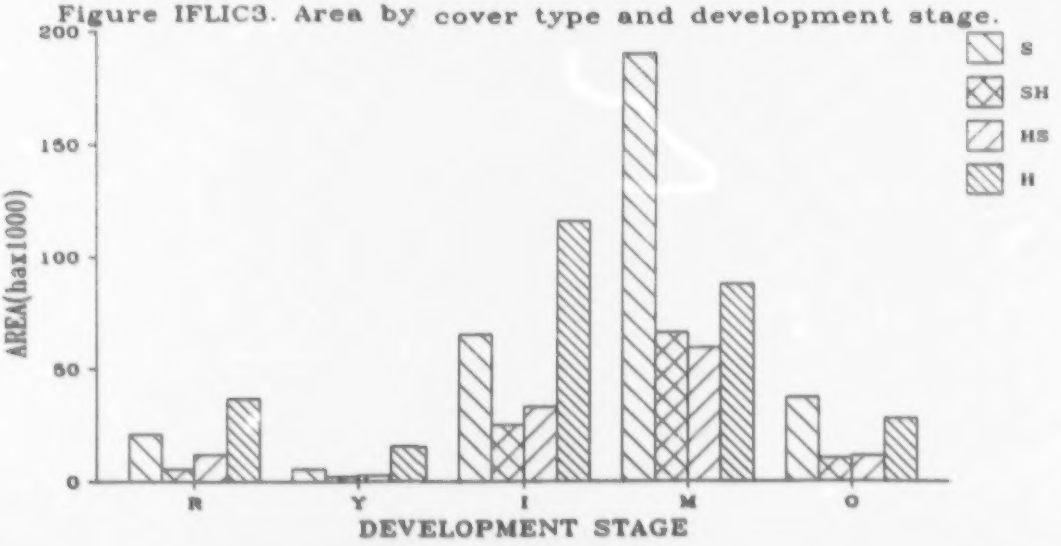

Table IFLIC5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on Licensee Industrial Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	 Immature	 Mature	 Overmature	TOTAL	PERCENT
S	SPBF	SW	210929	6087029	15028551	2228027	23554536	22.42
		HW	17305	406458	987441	163223	1574427	1.50
	BFSP	SW	114827	1318061	6381385	2121640	9935913	9.46
		HW	16803	180936	810966	251004	1259709	1.20
	PINE	SW	57319	207053	301529	1831	567732	.54
		HW	4125	5482	10746	32	20385	.02
	PSSP	SW	1521	233324	908088	198201	1341134	1.28
		HW	54	4354	3910	0	8318	.01
	OTSW	SW	19421	236081	3849930	667906	4773338	4.54
		HW	1303	17499	278150	35200	332152	.32
SH	SPTM	SW	11321	1495564	3578645	153989	5239519	4.99
		HW	7006	442418	1612033	103591	2165048	2.06
	SPIM	SW	10582	589656	1480372	259828	2340438	2.23
		HW	6710	247815	602606	123303	980434	.93
	BFTM	SW	20711	229875	914057	341290	1505933	1.43
		HW	6205	81998	431965	177379	697547	.66
	BFIM	SW	77009	409019	828009	299879	1613916	1.54
		HW	14771	88483	305632	105472	514358	.49
HS	TMSP	SW	11429	1265920	1931600	102943	3311892	3.15
		HW	5574	875980	1728240	175242	2785036	2.65
	IMSP	SW	20314	676692	1101446	40492	1838944	1.75
		HW	17587	672084	850735	57866	1598272	1.52
	TMBF	SW	29343	255225	1198144	374912	1857624	1.77
		HW	15998	262502	1098463	495901	1872864	1.78
	IMBF	SW	101915	360228	414316	97868	974327	.93
		HW	61415	195977	431546	101935	790873	.75
H	TOHW	SW	301561	3117293	2354349	1256695	7029898	6.69
		HW	566012	7901514	5787606	2754207	17009339	16.19
	THIM	SW	46903	621414	243782	16946	929045	.88
		HW	59328	855213	395564	27500	1337605	1.27
	INHW	SW	156672	372116	628466	124114	1281368	1.22
		HW	110278	782937	1255553	147622	2296390	2.19
	INTM	SW	153317	247800	156267	8201	565585	.54
		HW	105864	396923	631442	33155	1167384	1.11

Table IFLIC5a. Gross merchantable volume (m3) by cover type, species class, and development stage on Licensee Industrial Freehold.

COVER	SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
TYPE	CLASS	Young	Immature	Mature	Overmature		
S	SW	404017	8081548	26469483	5217605	40172653	38.23
	HW	39590	614729	2091213	449459	3194991	3.04
	TOTAL	443607	8696277	28560696	5667064	43367644	41.27
SH	SW	119623	2724114	6801083	1054986	10699806	10.18
	HW	34692	860714	2952236	509745	4357387	4.15
	TOTAL	154315	3584828	9753319	1564731	15057193	14.33
HS	SW	163001	2558065	4645506	616215	7982787	7.60
	HW	100574	2006543	4108984	830944	7047045	6.71
	TOTAL	263575	4564608	8754490	1447159	15029832	14.30
H	SW	658453	4358623	3382864	1405956	9805896	9.33
	HW	841482	9936587	8070165	2962484	21810718	20.76
	TOTAL	1499935	14295210	11453029	4368440	31616614	30.09
ALL COVER TYPES	SW	1345094	17722350	41298936	8294762	68661142	65.35
	HW	1016338	13418573	17222598	4752632	36410141	34.65
	TOTAL	2361432	31140923	58521534	13047394	105071283	100.00
ALL COVER TYPES (%)	SW	1.28	16.87	39.31	7.89	65.35	
	HW	.97	12.77	16.39	4.52	34.65	
	TOTAL	2.25	29.64	55.70	12.42	100.00	

Table IFLIC6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on Licensee Industrial Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	66	125	140	137	134
		HW	5	8	9	10	9
	BFSP	SW	86	130	151	147	146
		HW	13	18	19	17	18
	PINE	SW	76	142	150	122	134
		HW	5	4	5	2	5
	PSSP	SW	35	71	73	60	70
		HW	1	1	0	0	0
	OTSW	SW	73	118	142	185	143
		HW	5	9	10	10	10
SH	SPTH	SW	41	114	101	111	104
		HW	25	34	46	74	43
	SPIH	SW	32	91	102	108	99
		HW	20	38	42	51	41
	BFTH	SW	76	100	99	110	101
		HW	23	36	47	57	47
	BFIH	SW	64	119	109	86	103
		HW	12	26	40	30	33
HS	THSP	SW	64	86	79	44	79
		HW	31	59	70	74	67
	IHSP	SW	52	65	81	50	73
		HW	45	64	63	72	63
	THBF	SW	75	59	78	54	69
		HW	41	60	71	71	69
	IHBF	SW	63	92	45	65	73
		HW	38	50	68	68	59
H	TOHW	SW	38	35	37	49	38
		HW	72	89	91	107	91
	THIH	SW	38	49	43	43	47
		HW	48	67	70	70	67
	IHHW	SW	41	40	47	78	46
		HW	29	85	94	92	82
	IHTH	SW	61	45	26	26	39
		HW	42	72	103	103	81

Table IFLIC7. Gross merchantable volume (m3) by species and development stage on Licensee Industrial Freehold.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	488737	8353505	20683232	3057540	32583014	31.01
Balsam Fir	674014	7118148	13669606	3948669	25410437	24.18
Jack Pine	48676	445019	468550	36290	998535	.95
Red Pine	4030	33575	68705	2440	108750	.10
White Pine	39851	829211	1153869	188078	2211009	2.10
Cedar	58499	739400	4141623	997212	5936734	5.65
Hemlock	19567	106795	562111	44017	732490	.70
Larch	11720	96697	551240	20516	680173	.65
TOTAL SOFTWOOD	1345094	17722350	41298936	8294762	68661142	65.35
Red Maple	191758	2469547	4238143	583786	7483234	7.12
Sugar Maple	204769	3966261	3746745	1782980	9700755	9.23
Yellow Birch	110990	2042741	3048170	1263525	6465426	6.15
Beech	97999	1439034	1225029	407250	3169312	3.02
Other Tolerant	1588	24155	24978	6866	57587	.05
Total Tolerant	607104	9941738	12283065	4044407	26876314	25.58
White Birch	155002	1301906	2244778	342131	4043817	3.85
Poplar	239171	1945872	2457890	300989	4943922	4.71
Other Intolerant	15061	229057	236865	65105	546088	.52
Total Intolerant	409234	3476835	4939533	708225	9533827	9.07
TOTAL HARDWOOD	1016338	13418573	17222598	4752632	36410141	34.65
TOTAL ALL SPECIES	2361432	31140923	58521534	13047394	105071283	100.00
PERCENT	2.25	29.64	55.70	12.42	100.00	

Figure IFLIC4a. Total volume by species class and development.

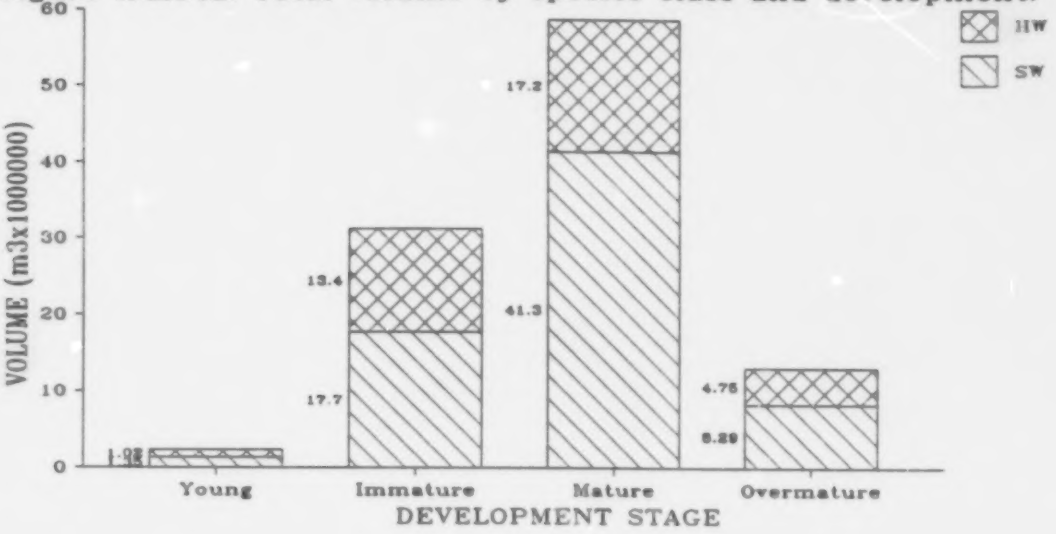

Figure IFLIC4b. Volume per ha by species class and development.

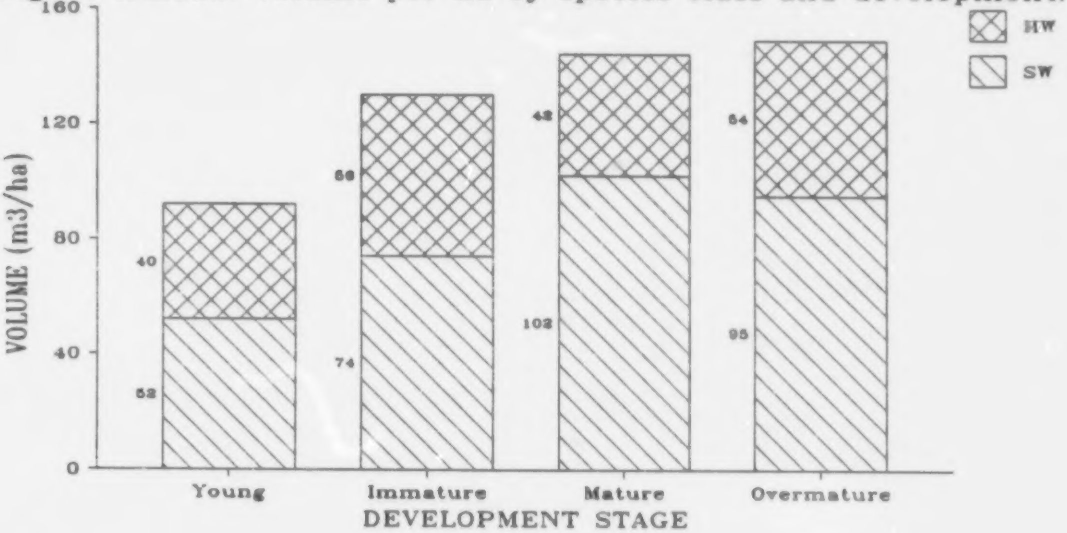

Figure IFLIC4c. Total area (hax1000) by development stage.

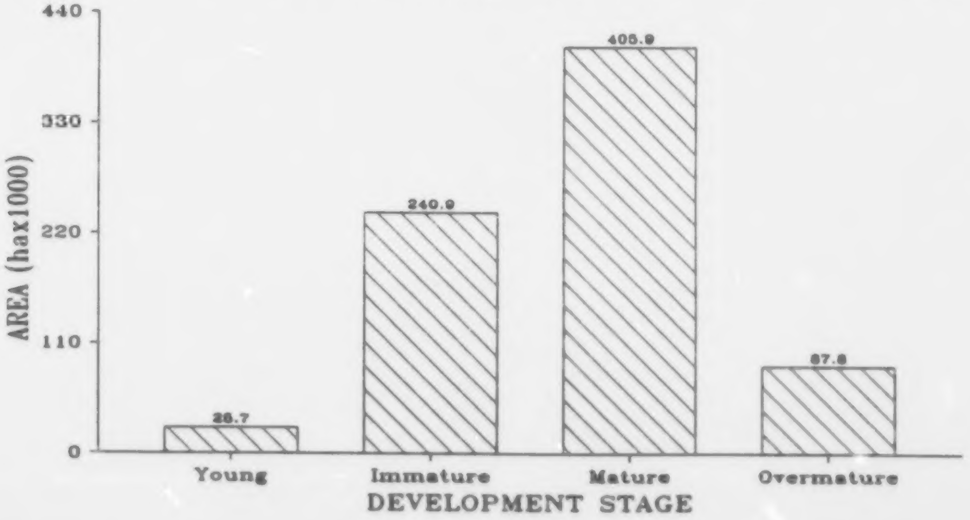

Table IFLIC8. Gross merchantable volume (m3) by species and DBH class (cm) on Licensee Industrial Freehold.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	6031086	15338553	11213375	32583014	31.01
Balsam Fir	5991674	14199988	5218776	25410437	24.18
Jack Pine	169468	570592	258475	998535	.95
Red Pine	3581	28190	76979	108750	.10
White Pine	71545	280307	1859157	2211009	2.10
Cedar	487676	1964278	3484780	5936734	5.65
Hemlock	22076	127006	583408	732490	.70
Larch	150677	319800	209695	680173	.65
TOTAL SOFTWOOD	12927783	32828714	22904645	68661142	65.35
Red Maple	1608805	3243627	2630803	7483234	7.12
Sugar Maple	1165979	2645397	5889380	9700755	9.23
Yellow Birch	495113	1506381	4463931	6465426	6.15
Beech	628222	1127684	1413406	3169312	3.02
Other Tolerant	9575	19325	28686	57587	.05
Total Tolerant	3907694	8542414	14426206	26876314	25.58
White Birch	1066815	1872026	1104976	4043817	3.85
Poplar	517336	1728617	2697969	4943922	4.71
Other Intolerant	214602	171612	159873	546088	.52
Total Intolerant	1798754	3772255	3962818	9533827	9.07
TOTAL HARDWOOD	5706448	12314669	18389024	36410141	34.65
TOTAL ALL SPECIES	18634231	45143383	41293669	105071283	100.00
PERCENT	17.73	42.96	39.30	100.00	

Figure IFLIC5. Volume by species class and DBH class.

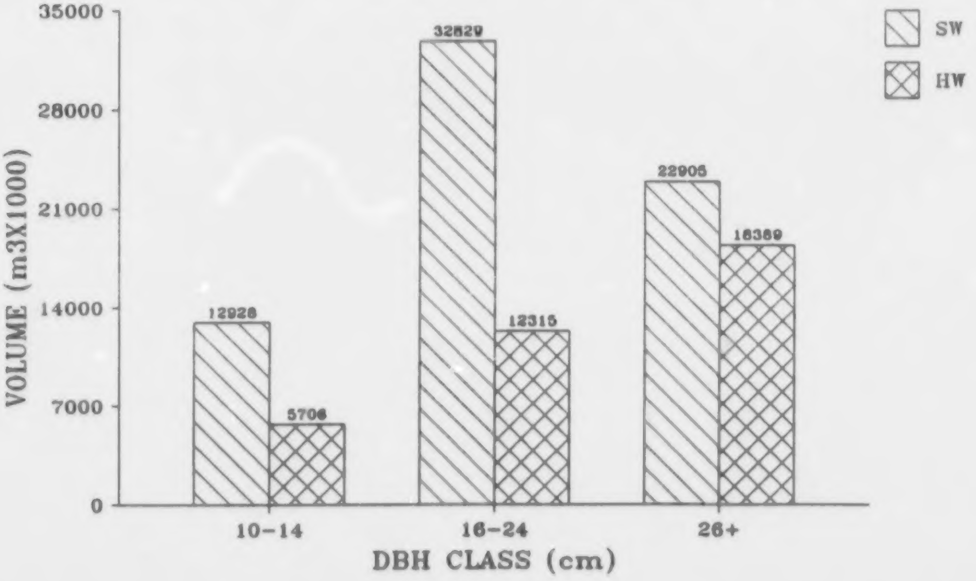

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Table IFSUB4. Area (ha) by cover type, forest unit and development stage on Sub-License Industrial Freehold.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	733	261	6873	6174	45	14086	21.04
	BFSP	716	50	800	976	20	2562	3.83
	PINE	21	42	341	238	1	643	.96
	PSSP	0	0	76	304	5	385	.58
	OTSW	37	44	521	2906	15	3523	5.26
	TOTAL	1507	397	8611	10598	86	21199	31.67
SH	SPTH	115	58	2749	2727	6	5655	8.45
	SPIH	82	38	1424	1301	0	2845	4.25
	BFTH	69	23	581	606	0	1279	1.91
	BFIH	109	28	270	306	0	713	1.07
	TOTAL	375	147	5024	4940	6	10492	15.67
HS	THSP	167	102	2719	2609	30	5627	8.41
	IHSP	142	52	2270	2146	0	4610	6.89
	THBF	67	92	541	716	0	1416	2.12
	IHBF	182	35	680	452	0	1349	2.02
	TOTAL	558	281	6210	5923	30	13002	19.42
H	TOHW	534	1327	7424	3057	11	12353	18.45
	THIH	479	183	1298	485	0	2445	3.65
	INHW	1135	141	1962	1853	44	5135	7.67
	INTH	487	72	853	894	4	2310	3.45
	TOTAL	2635	1723	11537	6289	59	22243	33.23
ALL COVER TYPES	TOTAL	5075	2548	31382	27750	181	66936	100.00
ALL COVER TYPES	PERCENT	7.58	3.81	46.88	41.46	.27	100.00	

Figure IFSUB3. Area by cover type and development stage.

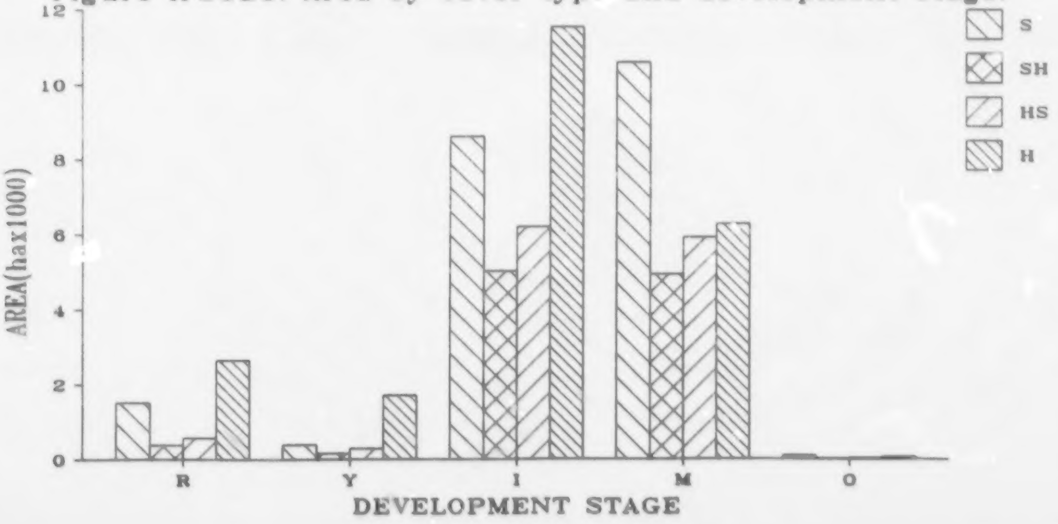

Table IFSUB5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on Sub-Licensee Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	15506	790585	821862	6303	1634256	20.09
		HW	1384	68763	69052	513	139712	1.72
	BFSP	SW	4064	102106	146805	2917	255892	3.15
		HW	591	14423	18617	357	33988	.42
	PINE	SW	3382	44168	36187	136	83873	1.03
		HW	191	2769	1770	2	4732	.06
	PSSP	SW	0	6003	21696	291	27990	.34
		HW	0	288	475	0	763	.01
	OTSW	SW	3256	67180	411132	2854	484422	5.96
		HW	220	7510	37440	155	45325	.56
SH	SPTH	SW	2347	263938	280136	619	547040	6.73
		HW	1452	112920	129327	416	244115	3.00
	SPIH	SW	1759	116942	116352	0	235053	2.89
		HW	814	52510	55046	0	108370	1.33
	BFTH	SW	1700	55145	59707	0	116552	1.43
		HW	571	22095	28053	0	50719	.62
	BFIH	SW	1865	30131	33044	0	65040	.80
		HW	328	7229	12299	0	19856	.24
HS	THSP	SW	6335	188877	206083	1331	402626	4.95
		HW	3710	168203	189806	2266	363985	4.48
	IHSP	SW	2223	128881	137363	0	268467	3.30
		HW	1509	144207	137999	0	283715	3.49
	THBF	SW	6673	30657	54297	0	91627	1.13
		HW	3612	31867	50971	0	86450	1.06
	IHBF	SW	2163	59436	28438	0	90037	1.11
		HW	1320	34913	30542	0	66775	.82
H	TOHW	SW	51745	219165	102788	525	374223	4.60
		HW	105150	700107	296973	1150	1103380	13.57
	THIH	SW	7106	50462	18266	0	75834	.93
		HW	10049	90782	42254	0	143085	1.76
	INHW	SW	5710	66064	60352	2852	134978	1.66
		HW	4050	161617	163304	4040	333011	4.09
	IHTH	SW	3536	30775	22879	104	57294	.70
		HW	3005	63599	92451	433	159488	1.96

Table IFSUB5a. Gross merchantable volume (m3) by cover type, species class, and development stage on Sub-Licensee Industrial Freehold.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE				TOTAL	PERCENT
		Young	Immature	Mature	Overmature		
S	SW	26208	1010042	1437682	12501	2486433	30.57
	HW	2386	93753	127354	1027	224520	2.76
	TOTAL	28594	1103795	1565036	13528	2710953	33.33
SH	SW	7671	466156	489239	619	963685	11.85
	HW	3165	194754	224725	416	423060	5.20
	TOTAL	10836	660910	713964	1035	1386745	17.05
HS	SW	17394	407851	426181	1331	852757	10.49
	HW	10151	379190	409318	2266	800925	9.85
	TOTAL	27545	787041	835499	3597	1653682	20.33
H	SW	68097	366466	204285	3481	642329	7.90
	HW	122254	1016105	594982	5623	1738964	21.38
	TOTAL	190351	1382571	799267	9104	2381293	29.28
ALL COVER TYPES	SW	119370	2250515	2557387	17932	4945204	60.81
	HW	137956	1683802	1356379	9332	3187469	39.19
	TOTAL	257326	3934317	3913766	27264	8132673	100.00
ALL COVER TYPES (%)	SW	1.47	27.67	31.45	.22	60.81	
	HW	1.70	20.70	16.68	.11	39.19	
	TOTAL	3.16	48.38	48.12	.34	100.00	

Table IFSUB6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on Sub-Licensee Industrial Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	AVERAGE
S	SPBF	SW	59	115	133	140	122
		HW	5	10	11	11	10
	BFSP	SW	81	128	150	146	139
		HW	12	18	19	18	18
	PINE	SW	81	130	152	136	135
		HW	5	8	7	2	8
	PSSP	SW	0	79	71	58	73
		HW	0	4	2	0	2
	OTSW	SW	74	129	141	190	139
		HW	5	14	13	10	13
SH	SPTH	SW	40	96	103	103	99
		HW	25	41	47	69	44
	SPIH	SW	46	82	89	0	85
		HW	21	37	42	0	39
	BFTH	SW	74	95	99	0	96
		HW	25	38	46	0	42
	BFIH	SW	67	112	108	0	108
		HW	12	27	40	0	33
HS	THSP	SW	62	69	79	44	74
		HW	36	62	73	76	67
	IHSP	SW	43	57	64	0	60
		HW	29	64	64	0	63
	THBF	SW	73	57	76	0	68
		HW	39	59	71	0	64
	IHBF	SW	62	87	63	0	77
		HW	38	51	68	0	57
H	TOHW	SW	39	30	34	48	32
		HW	79	94	97	105	93
	THIH	SW	39	39	38	0	39
		HW	55	70	87	0	73
	INHW	SW	40	34	33	65	34
		HW	29	82	88	92	83
	INTH	SW	49	36	26	26	31
		HW	42	75	103	108	87

Table IFSUB7. Gross merchantable volume (m3) by species and development stage on Sub-Licensee Industrial Freehold

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	46976	1193862	1344874	9277	2594989	31.91
Balsam Fir	54430	698421	647381	4799	1405031	17.28
Jack Pine	3561	55979	40503	180	100223	1.23
Red Pine	290	15193	8218	11	23712	.29
White Pine	4335	103595	78081	542	186553	2.29
Cedar	4806	122392	351897	2926	482021	5.93
Hemlock	3578	31327	45368	159	80432	.99
Larch	1394	29746	41065	38	72243	.89
TOTAL SOFTWOOD	119370	2250515	2557387	17932	4945204	60.81
Red Maple	23220	409646	436915	1982	871763	10.72
Sugar Maple	35862	331929	193738	1426	562955	6.92
Yellow Birch	15656	201900	181506	1612	400674	4.93
Beech	26578	164333	72492	355	263758	3.24
Other Tolerant	182	4163	2457	22	6825	.08
Total Tolerant	101498	1111971	887108	5397	2105975	25.90
White Birch	12340	217273	226365	1184	457162	5.62
Poplar	22397	315077	219605	2541	559620	6.88
Other Intolerant	1721	39481	23301	210	64712	.80
Total Intolerant	36458	571831	469271	3935	1081494	13.30
TOTAL HARDWOOD	137956	1683802	1356379	9332	3187469	39.19
TOTAL ALL SPECIES	257326	3934317	3913766	27264	8132673	100.00
PERCENT	3.16	48.38	48.12	.34	100.00	

Figure IFSUB4a. Total volume by species class and development.

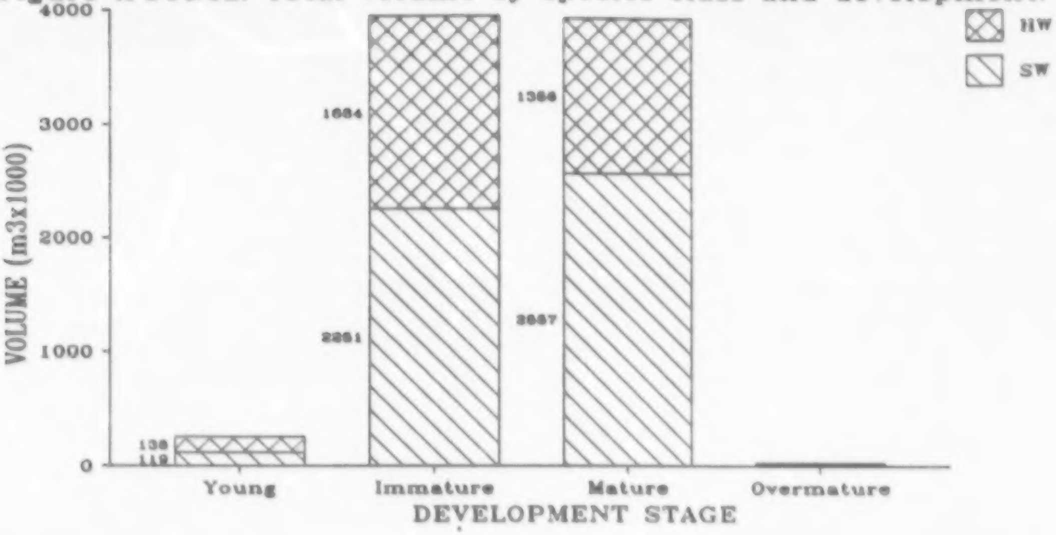

Fig. IFSUB4b. Volume per ha by species class and development.

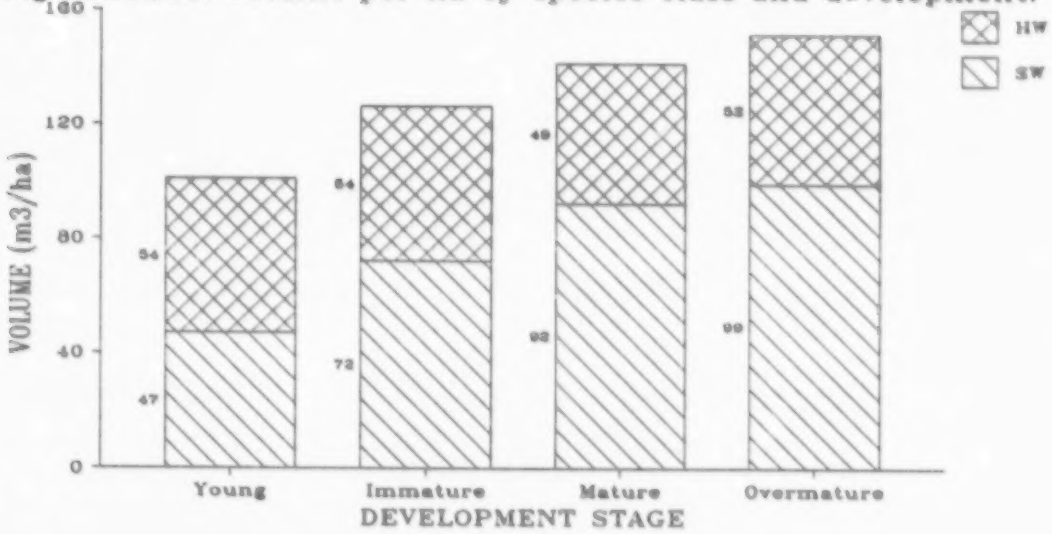

Figure IFSUB4c. Total area (hax1000) by development stage.

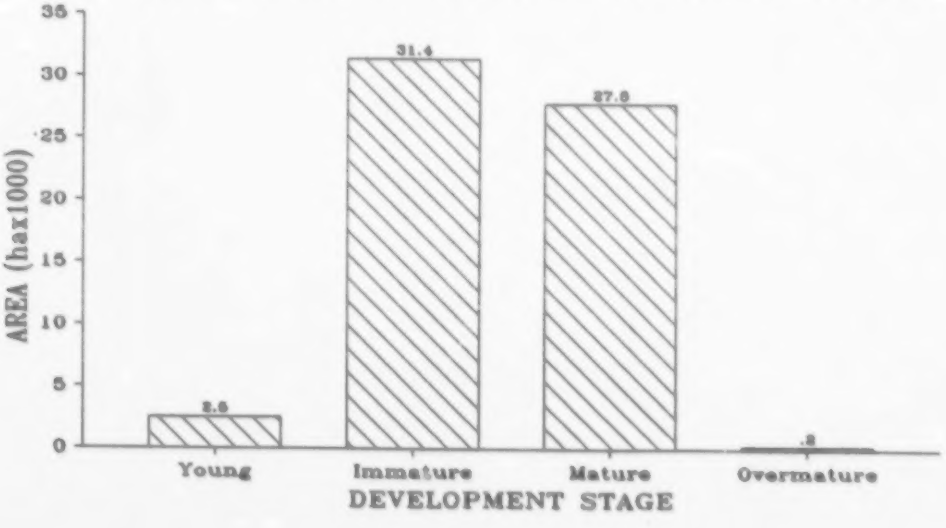

Table IFSUB8. Gross merchantable volume (m3) by species and DBH class (cm) on Sub-Licensee Industrial Freehold.

SPECIES	DBH CLASS 10-14	 16-24	 26+	TOTAL	PERCENT
Spruce	480330	1221599	893060	2594989	31.91
Balsam Fir	331301	785166	288564	1405031	17.28
Jack Pine	17010	57271	25943	100223	1.23
Red Pine	780	6147	16785	23712	.29
White Pine	6037	23650	156866	186553	2.29
Cedar	39596	159485	282940	482021	5.93
Hemlock	2424	13946	64062	80432	.99
Larch	16003	33967	22272	72243	.89
TOTAL SOFTWOOD	893481	2301232	1750491	4945204	60.81
Red Maple	187418	377868	306477	871763	10.72
Sugar Maple	67664	153518	341773	562955	6.92
Yellow Birch	30683	93353	276638	400674	4.93
Beech	52282	93849	117627	263758	3.24
Other Tolerant	1135	2291	3400	6825	.08
Total Tolerant	339182	720878	1045914	2105975	25.90
White Birch	120606	211637	124920	457162	5.62
Poplar	58559	195668	305393	559620	6.88
Other Intolerant	25431	20336	18945	64712	.80
Total Intolerant	204596	427641	449257	1081494	13.30
TOTAL HARDWOOD	543778	1148519	1495171	3187469	39.19
TOTAL ALL SPECIES	1437259	3449751	3245663	8132673	100.00
PERCENT	17.67	42.42	39.91	100.00	

Figure IFSUB5. Volume by species class and DBH class.

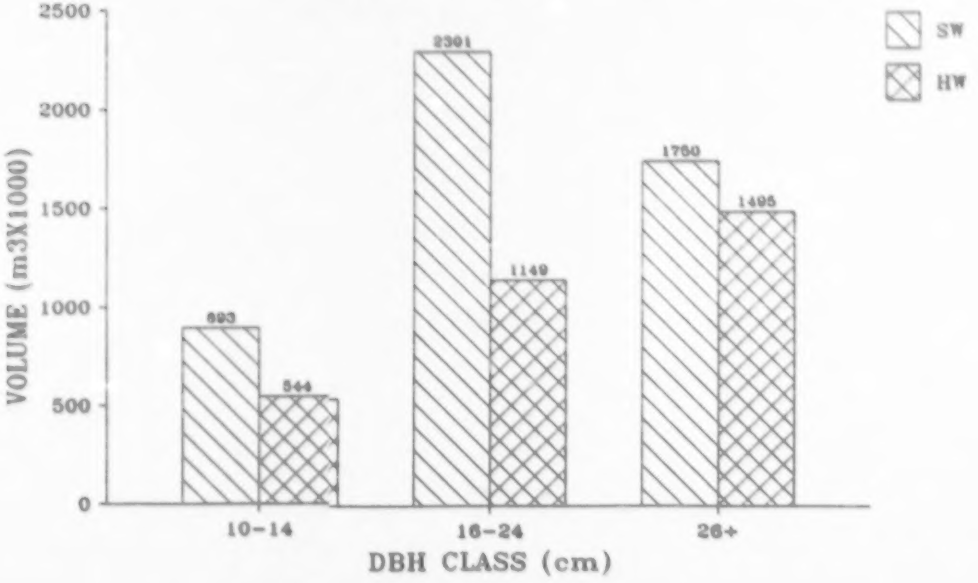

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Table IFOTH4. Area (ha) by cover type, forest unit and development stage on Other Industrial Freehold.

COVER TYPE	FOREST UNIT	DEVELOPMENT STAGE Regenerating	Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	1140	197	13008	19648	903	34896	24.30
	BFSP	2661	238	1525	1595	302	6321	4.40
	PINE	131	6	742	548	0	1427	.99
	PSSP	1	3	89	1394	69	1556	1.08
	OTSW	54	122	1383	14919	1447	17925	12.48
	TOTAL	3987	566	16747	38104	2721	62125	43.26
SH	SPTH	114	40	5883	9175	137	15349	10.69
	SPIH	95	55	1204	2057	39	3450	2.40
	BFTH	145	33	561	365	15	1119	.78
	BFIH	898	150	144	61	3	1256	.87
	TOTAL	1252	278	7792	11658	194	21174	14.74
HS	THSP	414	87	6578	4374	52	11505	8.01
	IHSP	390	75	1972	2917	12	5366	3.74
	THBF	152	71	374	100	0	697	.49
	IHBF	1378	175	307	162	5	2027	1.41
	TOTAL	2334	408	9231	7553	69	19595	13.64
H	TOHW	747	723	15778	4945	32	22225	15.48
	THIH	715	358	4039	973	0	6085	4.24
	IHHW	2079	747	1530	2968	212	7536	5.25
	IHTH	947	189	1511	2230	0	4877	3.40
	TOTAL	4488	2017	22858	11116	244	40723	28.36
ALL COVER TYPES	TOTAL	12061	3269	56628	68431	3228	143617	100.00
ALL COVER TYPES	PERCENT	8.40	2.28	39.43	47.65	2.25	100.00	

Figure IFOTH3. Area by cover type and development stage.

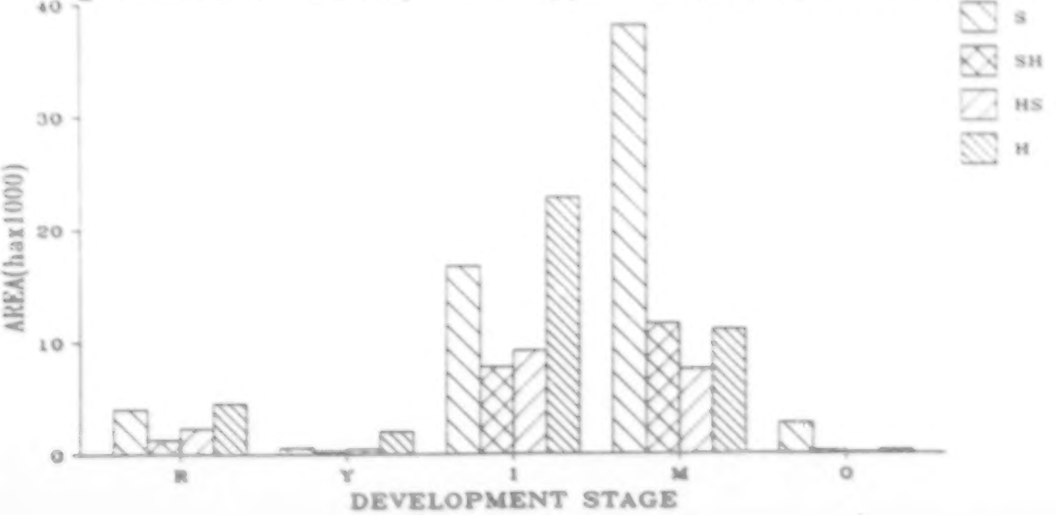


Table IFOTH5. Gross merchantable volume (m3) by cover type, forest unit, species class, and development stage on Other Industrial Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SPBF	SW	9442	1341785	2475810	131786	3958823	23.14
		HW	1003	156551	258033	15424	431011	2.52
	BFSP	SW	11730	152794	226876	44417	435817	2.55
		HW	1552	30776	27874	5437	65639	.38
	PINE	SW	659	89430	84559	0	174648	1.02
		HW	0	8391	5321	0	13712	.08
	PSSP	SW	99	4933	98534	4102	107668	.63
		HW	4	398	3214	0	3616	.02
	OTSW	SW	8989	143242	2042481	256982	2451694	14.33
		HW	603	22130	215579	17558	255870	1.50
SM	SPTN	SW	1649	494137	949369	15187	1460342	8.53
		HW	1020	251994	447496	10216	710726	4.15
	SPIN	SW	3282	87694	164221	4229	259426	1.52
		HW	677	42507	88012	2007	133203	.78
	BFTN	SW	2427	42985	34363	1680	81455	.48
		HW	815	25565	15556	874	42810	.25
	BFIN	SW	10092	7507	5585	296	23480	.14
		HW	1771	5106	2349	104	9330	.05
HS	TNSP	SW	5403	413182	343596	2286	764467	4.47
		HW	3165	429047	320192	3894	756298	4.42
	INSP	SW	3212	95007	161294	875	260388	1.52
		HW	2176	123885	189868	1249	317178	1.85
	THBF	SW	5151	16662	6160	0	27973	.16
		HW	2788	18688	7046	0	28522	.17
	INBF	SW	10705	17080	8102	256	36143	.21
		HW	6530	18122	10616	335	35603	.21
H	TOHW	SW	25741	370863	150213	1549	548366	3.20
		HW	69942	1583281	506113	3394	2162730	12.64
	THIN	SW	15220	117155	34694	0	167069	.98
		HW	25439	293429	90516	0	409384	2.39
	INHW	SW	21725	32788	73320	8159	135992	.79
		HW	18939	118532	252398	19851	409720	2.39
	INTN	SW	1047	38712	54025	0	93784	.55
		HW	6694	117732	214491	0	338917	1.98

Table IFOTH5a. Gross merchantable volume (m3) by cover type, species class, and development stage on Other Industrial Freehold.

COVER TYPE	SPECIES CLASS	DEVELOPMENT STAGE Young	Immature	Mature	Overmature	TOTAL	PERCENT
S	SW	30919	1732184	4928260	437287	7128650	41.66
	HW	3162	218246	510021	38419	769848	4.50
	TOTAL	34081	1950430	5438281	475706	7898498	46.16
SH	SW	17450	632323	1153538	21392	1824703	10.66
	HW	4283	325172	553413	13201	896069	5.24
	TOTAL	21733	957495	1706951	34593	2720772	15.90
HS	SW	24471	541931	519152	3417	1088971	6.36
	HW	14659	589742	527722	5478	1137601	6.65
	TOTAL	39130	1131673	1046874	8895	2226572	13.01
H	SW	63733	559518	312252	9708	945211	5.52
	HW	121014	2112974	1063518	23245	3320751	19.41
	TOTAL	184747	2672492	1375770	32953	4265962	24.93
ALL COVER TYPES	SW	136573	3465956	6913202	471804	10987535	64.21
	HW	143118	3246134	2654674	80343	6124269	35.79
	TOTAL	279691	6712090	9567876	552147	17111804	100.00
ALL COVER TYPES (%)	SW	.80	20.25	40.40	2.76	64.21	
	HW	.84	18.97	15.51	.47	35.79	
	TOTAL	1.63	39.22	55.91	3.23	100.00	

Table IFOTH6. Gross merchantable volume (m3/ha) by cover type, forest unit, species class, and development stage on Other Industrial Freehold.

COVER TYPE	FOREST UNIT	SPECIES CLASS	DEVELOPMENT STAGE				AVERAGE
			Young	Immature	Mature	Overmature	
S	SPBF	SW	48	103	126	146	117
		HW	5	12	13	17	13
	BFSP	SW	49	100	142	147	119
		HW	7	20	17	18	18
	PINE	SW	110	121	154	0	135
		HW	0	11	10	0	11
	PSSP	SW	33	55	71	59	69
		HW	1	4	2	0	2
	OTSW	SW	74	104	137	178	137
		HW	5	16	14	12	14
SH	SPTH	SW	41	84	103	111	96
		HW	26	43	49	75	47
	SPIH	SW	60	73	80	108	77
		HW	12	35	43	51	40
	BFTH	SW	74	77	94	112	84
		HW	25	46	43	58	44
	BFIH	SW	67	52	92	99	66
		HW	12	35	39	35	26
HS	THSP	SW	62	63	79	44	69
		HW	36	65	73	75	68
	IHSP	SW	43	48	55	73	52
		HW	29	63	65	104	64
	THBF	SW	73	45	62	0	51
		HW	39	50	70	0	52
	IHBF	SW	61	56	50	51	56
		HW	37	59	66	67	55
H	TOHW	SW	36	24	30	48	26
		HW	97	100	102	106	101
	THIH	SW	43	29	36	0	31
		HW	71	73	93	0	76
	INHW	SW	29	21	25	38	25
		HW	25	77	85	94	75
	IHTH	SW	6	26	24	0	24
		HW	35	78	96	0	86

Table IFOTH7. Gross merchantable volume (m3) by species and development stage on Other Industrial Freehold.

SPECIES	DEVELOPMENT STAGE				TOTAL	PERCENT
	Young	Immature	Mature	Overmature		
Spruce	62784	2129783	3683596	196917	6073080	35.49
Balsam Fir	52155	669140	1129407	38482	1889184	11.04
Jack Pine	5270	70829	115166	4553	195818	1.14
Red Pine	45	38878	31219	0	70142	.41
White Pine	5040	153994	198856	3960	361850	2.11
Cedar	5379	244026	1486988	225607	1962000	11.47
Hemlock	2676	87106	142482	1936	234200	1.37
Larch	3224	72200	125488	349	201261	1.18
TOTAL SOFTWOOD	136573	3465956	6913202	471804	10987535	64.21
Red Maple	17909	925851	1060038	28276	2032074	11.88
Sugar Maple	35055	603151	290465	8157	936828	5.47
Yellow Birch	18353	372313	321692	14102	726460	4.25
Beech	35271	416788	122019	2934	577012	3.37
Other Tolerant	268	10240	5521	281	16310	.10
Total Tolerant	106856	2328343	1799735	53750	4288684	25.06
White Birch	12421	383458	468280	15175	879334	5.14
Poplar	21306	437229	334305	8754	801594	4.68
Other Intolerant	2535	97104	52354	2664	154657	.90
Total Intolerant	36262	917791	854939	26593	1835585	10.73
TOTAL HARDWOOD	143118	3246134	2654674	80343	6124269	35.79
TOTAL ALL SPECIES	279691	6712090	9567876	552147	17111804	100.00
PERCENT	1.63	39.22	55.91	3.23	100.00	

Figure IFOTH4a. Total volume by species class and development.

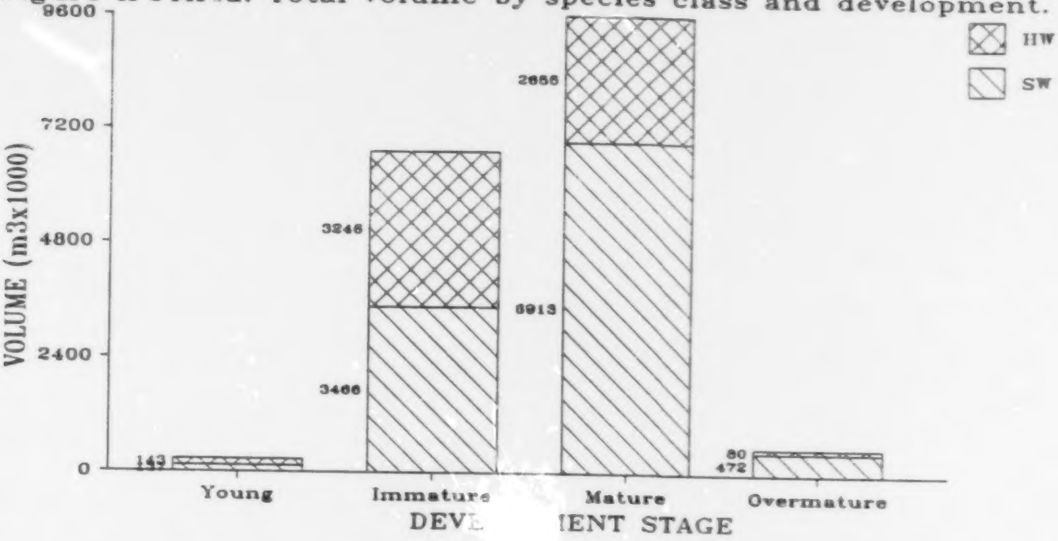


Fig. IFOTH4b. Volume per ha by species class and development.

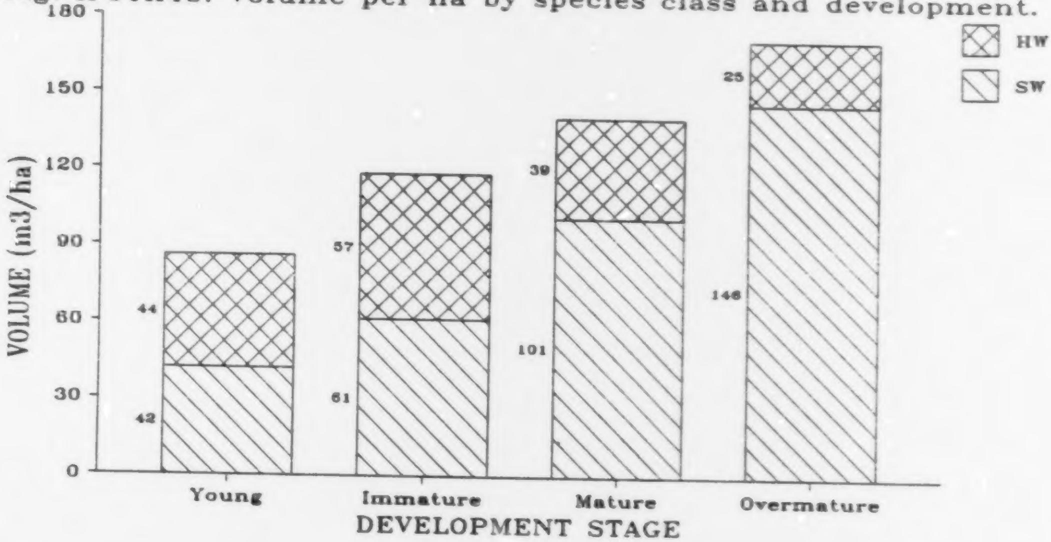


Figure IFOTH4c. Total area (hax1000) by development stage.

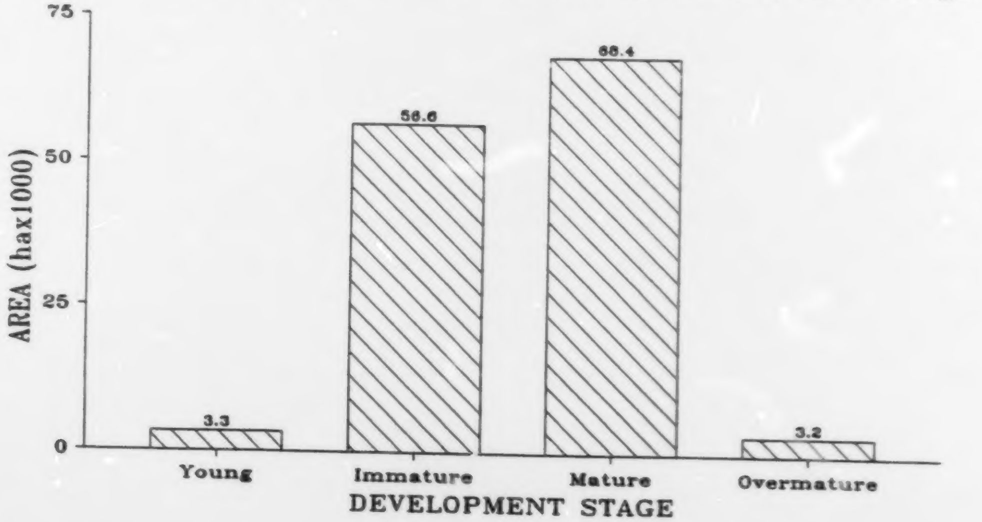
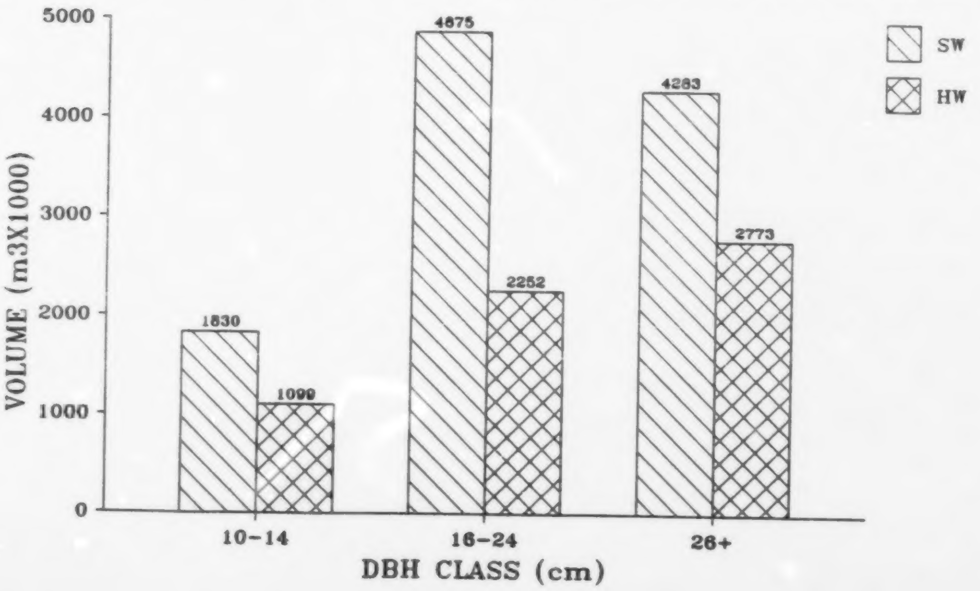


Table IFOTH8. Gross merchantable volume (m3) by species and DBH class (cm) on Other Industrial Freehold.

SPECIES	DBH CLASS			TOTAL	PERCENT
	10-14	16-24	26+		
Spruce	1124122	2858920	2090038	6073080	35.49
Balsam Fir	445462	1055723	387999	1889184	11.04
Jack Pine	33234	111896	50688	195818	1.14
Red Pine	2310	18182	49650	70142	.41
White Pine	11709	45874	304267	361850	2.11
Cedar	161169	649164	1151667	1962000	11.47
Hemlock	7059	40607	186534	234200	1.37
Larch	44585	94628	62048	201261	1.18
TOTAL SOFTWOOD	1829649	4874995	4282890	10987535	64.21
Red Maple	436872	880808	714395	2032074	11.88
Sugar Maple	112602	255473	568754	936828	5.47
Yellow Birch	55631	169258	501571	726460	4.25
Beech	114376	205308	257328	577012	3.37
Other Tolerant	2711	5474	8125	16310	.10
Total Tolerant	722191	1516321	2050172	4288684	25.06
White Birch	231980	407075	240279	879334	5.14
Poplar	83879	280273	437442	801594	4.68
Other Intolerant	60777	48602	45278	154657	.90
Total Intolerant	376637	735950	722998	1835585	10.73
TOTAL HARDWOOD	1098828	2252271	2773170	6124269	35.79
TOTAL ALL SPECIES	2928477	7127266	7056061	17111804	100.00
PERCENT	17.11	41.65	41.24	100.00	

Figure IFOTH5. Volume by species class and DBH class.



APPENDIX I

FOREST DEVELOPMENT SURVEY
CLASSIFICATION SYSTEM

I. NON-FOREST CONDITIONS

Cleared Land - Cultivated - AG- includes all agriculture, fallow pasture, etc.

- Occupied - OC - cities, towns, airstrips, etc.
  - TM - transmission lines
  - RR - railroads
  - RD - roads
  - MI - mining sites
  - GP - gravel pits

- Wasteland - WL - swamps, barrens, etc.
  - AW - alders near water
  - RO - rock outcrops

Federal Land - FL - includes all lands which are owned by or under the jurisdiction of the federal government; military bases, national parks, indian reserves etc.

Water - WA - fresh and salt water measured inland from the first bridge, dam, causeway or other break point.

II. FOREST CONDITIONS

Non-Productive Forest - NP - areas with some tree cover but which are not capable of producing minimum conditions for a merchantable stand.
- AC - alders on cuts
- AF - alders on fields

Productive Forest - areas with tree cover or capable of producing more than 35 m^3/ha of merchantable forest.

PRODUCTIVE FOREST

Productive forest land was identified by using four main parameters: species composition, development stage, crown closure and stand indicators.

A *species composition:*

The most common species (3 maximum per age class) each of which make up 20% or more of the gross merchantable volume of the stand, were listed to the nearest 10% in the following manner

e.g. $Sp_5\ TH_2\ bF_2$ *- Spruce 50%*
- Tolerant Hardwood 20%
- Balsam Fir 20%

The total need not add up to 10 (100%) but should not be less than 80%.

Species which were identified are listed below:

Sp - red and white spruce
bS - black spruce
SF - when spruce and balsam fir occurred in the same stand to a maximum of 40% and spruce was the dominant species; spruce and balsam fir were grouped together to give a more complete stand description.

e.g. $TH_4\ SP_2\ BF_2\ (IH_2)$ *could be grouped to give*
$TH_4\ SF_4\ IH_2$ *- a more complete stand description.*

bF - balsam fir
FS - when balsam fir and spruce occurred in the same stand to a maximum of 40% and balsam fir was the dominant species; balsam fir and spruce were grouped together to give a more complete stand description.

e.g. $TH_4\ BF_2\ SP_2\ (IH_2)$ *could be grouped to give*
$TH_4\ FS_4\ IH_2$ *- a more complete stand description.*

dF - dead fir
dS - dead spruce
rP - red pine
jP - jack pine
wP - white pine
Pi - when pine species occurred, but individually did not make up 20% of the stand, they were grouped and identified with Pi to a maximum of 30%

e.g. $SP_7\ PI_3$ *- spruce 70%*
- Pine 30% - red pine 10%
- jack pine 10%
- white pine 10%

tL - larch
eC - cedar
eH - hemlock
Sw - when softwood species occurred, but individually did not make up 20% of the stand, they were grouped and identified with SW to a maximum of 30%

e.g. SP_7 SW_3 - Spruce 70%
- Softwood 30% - balsam fir 15%
- white pine 15%

TH - tolerant hardwood; sugar and red maple, yellow birch, beech.
IH - white and grey birch, poplar
HW - when IH and TH species occurred, but individually did not make up 20% of the stand, they were grouped and identified with HW to a maximum of 30%.

e.g. Sp_7 HW_3 - Spruce 70%
- Hardwood 30% - intolerant hardwood 15%
- tolerant hardwood 15%

B. development stage

This parameter was used to describe a particular period in the life of a forest stand as it related to its stage of maturity. Not only did the development stage relate to maturity but the vigor and overall growth of the stand was also taken into account.

The following development stages were used:

F - Old Field - Unused fields or pastures which were showing signs of forest reproduction. If the type of regeneration could be interpreted it was indicated with the following symbols:
SwF - Old field regenerating with softwood
HwF - Old field regenerating with hardwood

B - Burn - Areas which were recently disturbed by fire and which were showing signs of forest reproduction. If the type of regeneration could be interpreted it was indicated with the following symbols:
SwB - Burn regenerating with softwood
HwB - Burn regenerating with hardwood

C - Cut - Areas of clearcuts and cutovers where the number of residuals form less than 20% crown closure. If the type of regeneration could be interpreted it was indicated with the following symbols:
SwC - Clearcut regenerating with softwood
HwC - Clearcut regenerating with hardwood
If the volume of residuals was greater than 35 m^3/ha, the stand was typed as a 2 age class stand. (See example under 2 Age Class Stands).

R - Regenerating - *Areas where forest reproduction had been established to the point where the species mix was stabilized and the canopy was closing. Trees were approximately 3 metres tall however there was no significant merchantable volume present. This stage was identified by a full classification.*

e.g. SP_9 R_4

Y - Immature Young - *Forest stands which were accumulating merchantable volume at a rapid rate and crown closure was complete. This stage was identified by a full classification.*

e.g. IH_{10} Y_3

I - Immature - Old - *Forest stands which were still accumulating merchantable volume at a reasonable rate but are older and approaching maturity. This stage was identified by a full classification.*

e.g. BF_8 I_4

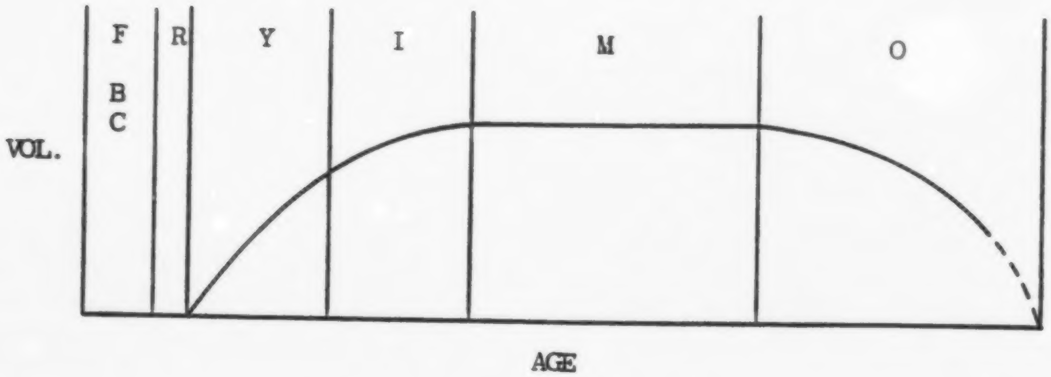
M - Mature - *Forest stands which were no longer accumulating merchantable volume, but were stable because growth and mortality were about equal. This stage was identified by a full classification.*

e.g. TH_9 M_3

O - Overmature - *Forest stands which were losing volume due to natural mortality within the stand. This stage was identified with a full classification.*

e.g. BF_8 O_2

The following graph showing gross merchantable volume over age illustrates the development stages of a forest stand from establishment to mortality.



Using permanent sample plot data from past inventories and the silvics of the major N.B. commercial tree species, development stages of forest stands were related to specific ages of the major species in the stand by the following table:

Species	R	Y	I	M	O
Balsam Fir	15-25	25-35	35-50	50-70	70+
Red Spruce	15-30	30-45	45-70	70-110	110+
Black Spruce	15-30	30-45	45-70	70-110	110+
White Spruce	10-20	20-40	40-60	60-110	110+
White Pine	15-30	30-50	50-90	90-160	160+
Jack Pine	10-20	20-40	40-70	70-110	110+
Red Pine	10-20	20-40	40-70	70-110	110+
Eastern Cedar	15-30	30-45	45-70	70-110	110+
Eastern Hemlock	15-30	30-50	50-90	90-140	140+
Larch	10-20	20-45	45-70	70-110	110+
Tolerant Hardwoods	15-30	30-50	50-80	80-160	160+
Intolerant Hardwoods	10-20	20-35	35-50	50-70	70+
Grey Birch	5-15	15-25	25-40	40-50	50+

Stands which had large amounts of dead or dying balsam fir or spruce due to the spruce budworm were classified to reflect the stage of development where death occurred. For example; a balsam fir stand which was 35 years old is immature and if it was killed, due to budworm it was not overmature, but immature and labelled as:

DF_6BF_3I3

Two Age Class Stands:

It was possible to have more than one development stage present in any one stand and when this occurred each stage was classified separately.

E.g.: SP_8 Mlh - 1st age class
SwC - 2nd age class

TH_9M1/TH_9I3 - TH_9M1 - 1st age class
TH_9I3 - 2nd age class

C. crown closure

Crown closure was defined as the percent of ground area occupied by the crowns of trees in a particular age class in a forest stand. The following percentages were used:

1 - 10-30%
6-1 - 10-30%; patchy/variable
2 - 30-50%
6-2 - 30-50%; patchy/variable
3 - 50-70%
6-3 - 50-70%; patchy/variable
4 - 70-90%
6-4 - 70-90%; patchy/variable
5 - 90%+

D. stand indicators

Stand indicators were used to delineate stand types altered by management intervention or influenced by a site condition. The following indicators were used:

P - Poor site - Forest stands which contained minimum merchantable volume levels but were located on wet or rocky ground.
e.g.: BS$_9$M62P - black spruce bog

V - Cuts with residuals - Cuts with residual volume (less than 35 m^3/ha) were identified by a V. This classification was also used in regenerating stands where residual volume persisted.
E.g.: SWC V - softwood cut with residuals

h - Partial cuts - Forest stands which were partially harvested were identified with an h at the end of the classification.
E.g.: WP$_5$TH$_4$M$_1$h

Silviculture treatments: - PL - plantations
TI - thinnings
SC - scarifications
- Silviculture treatments could be used for any classification and development stage.

Examples of Classification

1. RP$_6$SP$_3$M3
   - Red Pine 60%
   - Spruce 30%
   - Mature
   - Crown Closure - 50-70%

2. IH$_{10}$I3
   - Intolerant Hardwood - 100%
   - Immature
   - Crown Closure - 50-70%

3. WP$_4$IH$_4$Mlh/SP$_{10}$R3

   Age Class 1
   - White Pine 40%
   - Intolerant Hardwood 40%
   - Mature
   - Crown Closure - 10-30%
   - Harvested

   Age Class 2
   - Spruce 100%
   - Regenerating
   - Crown Closure - 50-70%

4.	$SP_{10}M2P$	- Spruce 100% - Mature - Crown Closure - 30-50% - Poor Site
5.	$JP_{10}R2PL$	- Jack pine 100% - Regenerating - Crown Closure - 30-50% - Planted
6.	$BF_{10}R2TI$	- Balsam fir 100% - Regenerating - Crown Closure - 30-50% - Thinned

APPENDIX II

FOREST UNIT ALGORITHM

Forest stands were grouped into seventeen forest unit names (FUNA) by an algorithm based on merchantable volume by species.

SPRUCE - BALSAM FIR

(SPBF) UNIT 1

Given a softwood condition (SW GE 75%)

(A) When species are in any order with: [(1) the weighted average of SP+BS+SF GE the total weighted average of OSW or BF+FS+DS+DF, and (2) the combined weighted average of SP with OSW GT 50%]. If OSW recorded first, the weighted average must be LT 50%.

e.g.

$BF_3SP_3EC_3$
$EC_4SP_4BF_4$
$SP_3EC_3BF_2$
$SP_4BF_4RP_2$
$SP_4DS_3RP_3$
$SP_3SW_3BF_3$

$SP_4BF_4TH_4$
$BF_4SP_4TH_2$
$BF_4SP_4EC_2$
SP_8
SP_8TH_2
SP_6EC_4

(B) When the weighted average of SP+BS+SF LT OSW but combined with BF+FS+DF+DS has weighted average GT OSW and combined weighted average of SP+BS+SF+OSW GT 50%.

e.g.

$EC_4BF_4SP_2$
$BF_4EH_4SP_2$
$RP_3DS_3SP_2$
$WP_3SP_3BF_3$

$BF_4EC_3SP_3$
$BF_3SP_3RP_3$
$EC_4BF_3SP_2$

BALSAM FIR - SPRUCE

(BFSP) UNIT 2

Given a softwood condition (SW GE 75%)

(A) When the weighted average of dF+FS+DS+DF is GT 50%.

e.g.

$BF_4DS_3IH_2$
$BF_4DS_3EC_2$
$EC_3BF_3DS_2$
$DS_3eC_3BF_2$

$EH_4BF_4DS_2$
$DS_4BF_4RP_2$

(B) When BF or FS is listed first (highest %), and the weighted average is GE the total weighted average of OSW+SP+BS+SF.

e.g.

BF_5SP_4
BF_8SP_2
BF_2EC_2
$BF_5SP_2EC_2$
$BF_4EC_2SP_2$

BF_4EH_4
BF_6SP_4
BF_7EH_3
BF_6TL_4
$BF_4TL_4TH_2$

$BF_4SP_4IH_2$
$BF_4RP_3IH_2$

PINE

(PINE) UNIT #3

Given a softwood condition (SW GE 75%).
When the following pines: RP, JP, WP and PI are GE 50% when recorded first, or in combination are GT 50% in any order.

e.g.

WP_8TH_2
WP_7SP_2
RP_{10}
WP_6BF_3
$WP_3SP_3JP_3$
$SP_4WP_3JP_2$
WP_5SP_5

POOR SITE SPRUCE

(PSSP) UNIT #4

Given a softwood condition (SW GE 75%).
Same conditions as UNIT 1 with a poor site indicator "P" in the attribute list.

OSW(OTHER SOFTWOOD

(OTSW) UNIT #5

Given a softwood condition (SW GE 75%).
When the following softwoods: TL, EC, EH and SW are GE 50% when recorded first, or in combination are GT 50% of the softwood volume in any order.

e.g.

EC_8TH_2
$EC_4EH_3TL_3$
$EC_3SP_3TL_3$

SPRUCE - TOLERANT HARDWOOD

(SPTH) UNIT #6

Given a softwood-hardwood condition (75% LT SW GE 50%).
BF+FD+DF+DS are LT 50% of the softwood volume, or BF+FS+DF+DS EQ 50% of the softwood volume and either BF, FS, DF, or DS does not occur before any other softwood designator; and TH GE IH (TH occurs before IH).

e.g.

$SP_4BF_4TH_3$
$EC_4SP_2TH_4$

SPRUCE - TOLERANT HARDWOOD

(SPIH) UNIT #7

Given a softwood-hardwood condition (75% LE SW GT 50%).
BF+FS+DF+DS are LT 50% of the softwood volume, or BF+FS+DF+DS EQ 50% of the softwood volume and either BF, FS, DF or DS does not occur before any other softwood designator; and IH GT TH (IH occurs before TH).

e.g.

SP_4IH_4
$SP_5IH_2TH_2$
EC_6IH_3
TL_5IH_5

BALSAM FIR - TOLERANT HARDWOOD

(BFTH) UNIT #8

Given a softwood-hardwood condition (75% LT SW GE 50%). BF+FS+DF+DS are GT 50% of the softwood volume, or BF+FS+DF+DS EQ 50% of the softwood volume and either BF, FS, DF or DS occurs before any other softwood designator; and TH GE IH (TH occurs before IH).

e.g. $BF_5TH_3IH_2$
$BF_3TH_3EH_3$
BF_4TH_4

BALSAM FIR - INTOLERANT HARDWOOD

(BFIH) UNIT #9

Given a softwood-hardwood condition (75% LT SW GE 50%). BF+FS+DF+DS are GT 50% of the softwood volume, or BF+FS+DF+DS EQ 50% of the softwood volume and either BF, FS, DF or DS occurs before any other softwood designator; and IH GT TH (IH occurs before TH).

e.g. $BF_5IH_3TH_2$
$BF_3IH_3EH_3$
BF_4IH_4

TOLERANT HARDWOOD - SPRUCE

(THSP) UNIT #10

Given a hardwood-softwood condition (50% LT SW GE 25%). TH GE IH, and BF+FS+DF+DS are LT 50% of the softwood volume.

e.g. TH_4SP_4
$TH_3IH_3EC_3$

INTOLERANT HARDWOOD - SPRUCE

(IHSP) UNIT #11

Given a hardwood-softwood condition (50% LT SW GE 25%). IH GE TH (IH occurs before TH), and BF+FS+DF+DS are LT 50% of the softwood volume.

e.g. IH_4SP_4
$IH_4SP_2BF_2$
$IH_3TH_3SP_3$

TOLERANT HARDWOOD - BALSAM FIR

(THBF) UNIT #12

Given a hardwood-softwood condition (50% LT SW GE 25%). TH GE IH (TH occurs before IH), and BF+FS+DF+DS are GE 50% of the softwood volume.

e.g. TH_4BF_4
$TH_3IH_3BF_3$
$TH_5BF_3SP_2$

INTOLERANT HARDWOOD - BALSAM FIR

(IHBF) UNIT #13

Given a hardwood-softwood condition (50% LT SW GE 25%). IH GT TH (IH occurs before TH), and bF+FS+dF+dS are GE 50% of the softwood volume.

e.g. IH_4BF_4
$IH_5BF_3SP_2$

TOLERANT HARDWOOD

(TOHW) UNIT #14

Given a hardwood condition (SW LT 25%). TH GE 75% of the hardwood volume.

e.g. TH_7IH_2
$TH_6IH_2SP_2$

TOLERANT HARDWOOD - INTOLERANT HARDWOOD

(THIH) UNIT #15

Given a hardwood condition (SW LT 25%). TH GT 50% of the hardwood volume, or when TH EQ 50% of the hardwood volume and TH is listed as the first species.

e.g. $TH_4IH_4SP_2$
$TH_5IH_3EH_2$

INTOLERANT HARDWOOD

(INHW) UNIT #16

Given a hardwood condition (SW LT 25%). IH GE 75% of the hardwood volume.

e.g. IH_7TH_2
$IH_6TH_2SP_2$

INTOLERANT HARDWOOD - TOLERANT HARDWOOD

(IHTH) UNIT #17

Given a hardwood condition (SW LT 25%). IH GT 50% of the hardwood volume, or when IH EQ 50% of the hardwood volume and is listed as the first species.

e.g. IH_5TH_4
IH_5TH_5

APPENDIX III

HEIGHT RANGE VOLUME TABLES FOR INDIVIDUAL TREES

1. SOFTWOOD

The decay/cull survey that was conducted by the Timber Management Branch of the Department of Natural Resources from 1981-1986 provided an opportunity to generate a set of volume tables that reflected the current condition of spruce and balsam fir trees.

An examination of a set of Standard Volume Tables showed that the difference in volume between height classes was greater than the volume difference between the major softwood species for the same height class (e.g. Form Class Volume Tables). This fact prompted the decision to prepare volume tables for a set of four (4) height ranges to be used for all softwood species. The Gross Merchantable volume tables were expressed in cubic metres (m^3) for a 15 cm stump and an 8 cm top diameter inside bark.

To use the tables it was necessary to record some heights and breast height diameters of representative trees of each species in each age class for a particular stand. The diameter and height of each diameter class were compared with the height ranges in Figure 1 to determine the volume table to be used for each species on the cruise tally sheet.

The system is sensitive enough to allow different tables to be used for different species in the same area, e.g. due to site conditions, cedar and hemlock may fall in a different height range from the average spruce and fir.

Method

The tree measurements collected during the decay survey provided data on small butt diameter, breast height diameter, and total length. The trees were cut into two (2) metre sections with the distance from butt, diameter and single bark thickness recorded for each section.

The volume inside bark of each section was calculated and accumulated to give total tree volume. The distances from butt for 10 cm and 8 cm tops (inside bark) were interpolated and the volumes to these two top diameters calculated and accumulated to give gross merchantable volume.

The maximum and minimum total height were determined for each diameter class and plotted to give curves of maximum and minimum heights. The values above and below these averages were isolated and curves fitted to give the high and low values of the maximum and minimum heights. The height difference for each diameter class was divided into four ranges and the values plotted to give height ranges shown in Figure 1. The mid values of each height range were calculated and curves fitted to give the average height for each range.

The assistance of M. Ker of the Canadian Forestry Service - Maritimes was enlisted to develop coefficients for the required volume tables. A file of the output values for each tree in the decay survey was prepared for use with computer programs to generate coefficients for different types of volume equations. The equations used are as follows:

Honer Total Volume	$V = D^2/(b_0+b_1/H)$
Non-Linear Total Volume	$V = b_0 D^{b1} H^{b2}$
Non-Linear Merchantable Volume to 8 cm Top	$VM8 = b_0 D^{b1} H^{b2}$
Non-Linear Merchantable Volume to 10 cm Top	$VM10 = b_0 D^{b1} H^{b2}$

Ratio of Merchantable Volume to Total Volume to be applied to both the Honer and Non-Linear Total Volume values.

where D = DBHOB
H = Total Height
b_0 b_1 and b_2 are appropriate coefficeints

Coefficients were calculated for each of the species of Spruce, Balsam Fir and Spruce and Fir combined for all of the equations. A calculation of the standard error of estimate or difference, using all trees, was done between the measured volume and the calculated volumes using the above coefficients for all of the volume equations. The best agreement for merchantable volume to an 8 cm top diameter was for the merchantable volume ratio applied to the non-linear total volume using the coefficients developed for spruce and fir combined.

Table 1 is a listing of the Height Range Gross Merchantable Volume Tables to an 8 cm top diameter inside bark. The values were calculated using the combined spruce and fir coefficients in the merchantable volume ratio equation, combined with the non-linear total volume equation. The heights used were the mid values of the height ranges, derived from the coefficients in Figure 1. The column headed "All" was generated in the same manner using the average heights from the four ranges, i.e. the division between ranges 2 and 3. This column essentially gives an average volume for the whole province.

2. HARDWOOD

Unfortunately, the decay/cull survey did not include hardwood volume data. To generate height range volume tables for hardwood species data collected for the 1969 Hardwood Volume Survey* was used.

Volume tables were prepared for a set of four (4) height ranges for all hardwood species in a similar procedure as was used for the softwood tables.

Table 1. Gross merchantable volume table for all softwood species - Provincial Crown Land.

GROSS MERCHANTABLE VOLUME (CUBIC METERS)
ALL SOFTWOOD SPECIES
(Stump Height = .15 m : Top Diameter Inside Bark = 8 cm)

DBHOB	HEIGHT RANGE				
(cm)	1	2	3	4	ALL
10	.013	.021	.029	.036	.025
12	.027	.041	.055	.069	.048
14	.044	.064	.085	.106	.075
16	.064	.092	.120	.148	.106
18	.089	.125	.160	.195	.143
20	.118	.162	.206	.251	.186
22	.153	.206	.259	.312	.233
24	.193	.257	.319	.381	.288
26	.239	.312	.384	.456	.348
28	.290	.374	.456	.538	.415
30	.348	.443	.536	.626	.492
32	.416	.520	.624	.725	.572
34	.488	.600	.720	.840	.658
36	.572	.696	.812	.933	.752
38	.660	.783	.916	1.049	.854
40	.761	.896	1.032	1.167	.964
42	.866	1.008	1.151	1.293	1.082
44	.980	1.134	1.278	1.427	1.209
46	1.103	1.264	1.413	1.562	1.344

Equation: $VTN = .000079442 * D^{1.7788} * H^{.9627}$

$VM = VTM * (b0 + b2 * X8)$

Where: VM = Merchantable Volume :
VTN = Total Volume
b0 = .9465
b2 =-.8169
$X8 = (T^2/D^2) * (1 + S/H)$

Where: T = Top Diameter (IB)
D = DBHOB
S = Stump Height (m)
H = Total Height (m)

Data Source : 4176 Spruce and Balsam Fir from 1981-85 N.B. Decay Survey, combined to generate volume coefficients.

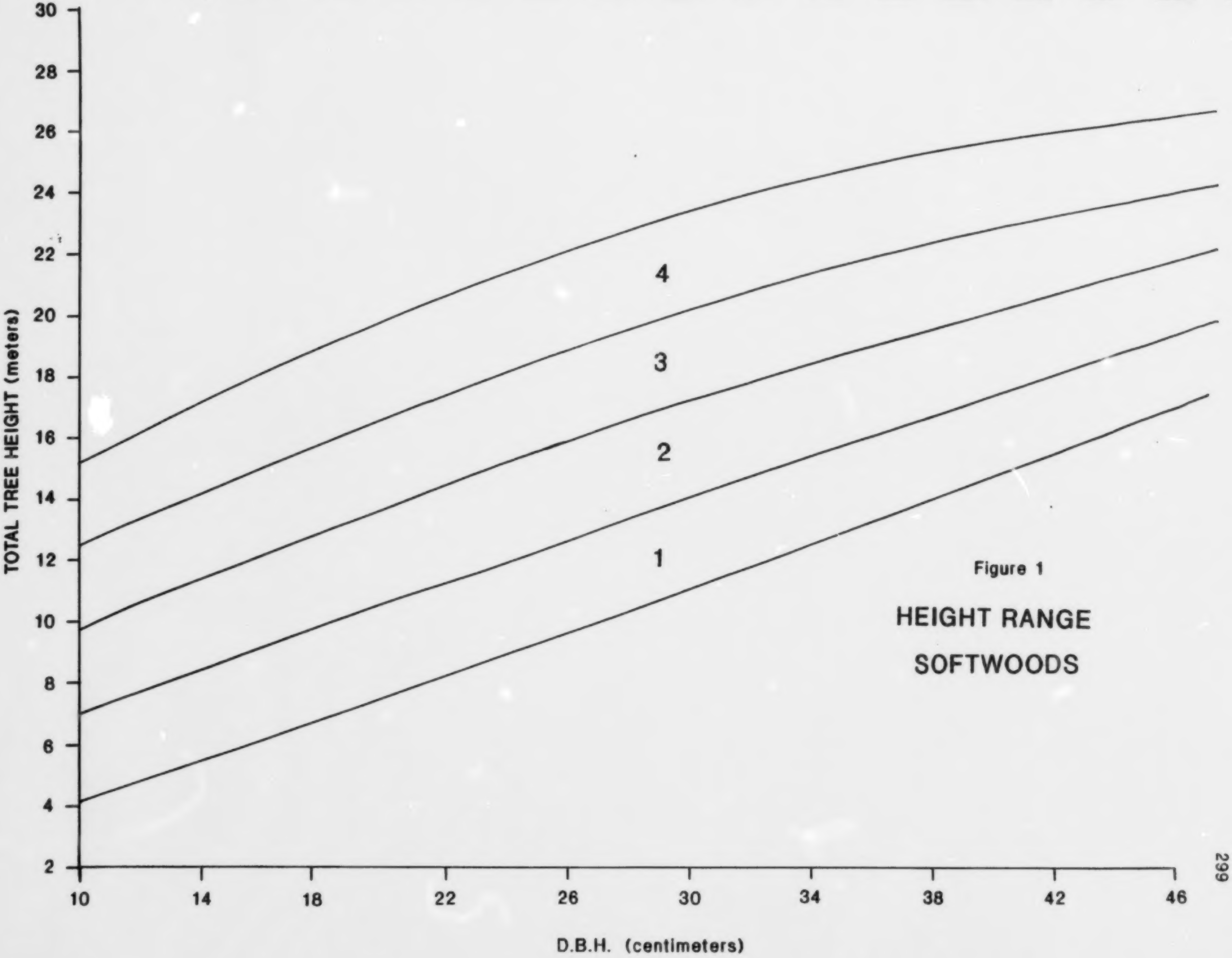


Figure 1

HEIGHT RANGE
SOFTWOODS

Method

The methodology of the hardwood volume survey was similar to the softwood decay/cull survey. Each tree was sectioned at a stump height of one (1) foot, and at three and a half (3.5) feet and eight (8) feet above the stump, thence in four (4) foot sections. In addition to small butt diameter, breast height diameter and total length; for the top of each section, the distance from butt, average diameter and single bark thickness were recorded for each section.

The volume inside bark of each section was calculated and accumulated to give total tree volume. The volume of wood in the top of the hardwood trees did not include the wood in the branches. Only the wood in the main stem was sectioned for volume calculations.

Total height, diameters and volumes were converted to metric units.

Height ranges were calculated by the same procedure as was used in the softwood calculations. Coefficients for the required hardwood volume table were calculated for each of the hardwood species then combined to form one table.

Table 2 is a listing of the Height Range Gross Merchantable Volume Tables to an 8 cm top diameter inside bark. The values were calculated using the combined hardwood coefficients. The heights used were the mid values of the height ranges. The column headed "All" was generated in the same manner using the average heights from the four ranges. This column essentially gives an average volume for the whole province.

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* Carlin, D. A. 1969. Hardwood Volume Survey, Forests Branch, Department of Natural Resources, Province of New Brunswick.

Table 2. Gross merchantable volume table for all hardwood species - Provincial Crown Land.

GROSS MERCHANTABLE VOLUME (CUBIC METERS)
ALL HARDWOOD SPECIES
(Stump Height = .15 m : Top Diameter Inside Bark = 8 cm)

DBHOB (cm)	HEIGHT RANGE 6	7	8	9	ALL
10	.025	.030	.035	.040	.032
12	.033	.040	.046	.053	.042
14	.047	.054	.065	.075	.060
16	.068	.079	.092	.109	.085
18	.094	.114	.130	.148	.120
20	.125	.152	.174	.198	.160
22	.161	.195	.224	.255	.207
24	.203	.245	.280	.318	.259
26	.251	.300	.342	.386	.318
28	.305	.362	.410	.460	.382
30	.365	.429	.484	.541	.352
32	.431	.502	.564	.627	.530
34	.502	.581	.649	.719	.613
36	.579	.665	.741	.817	.701
38	.662	.756	.839	.921	.796
40	.751	.852	.942	1.030	.897
42	.846	.955	1.052	1.146	1.005
44	.947	1.063	1.167	1.277	1.118
46	1.053	1.177	1.289	1.395	1.237

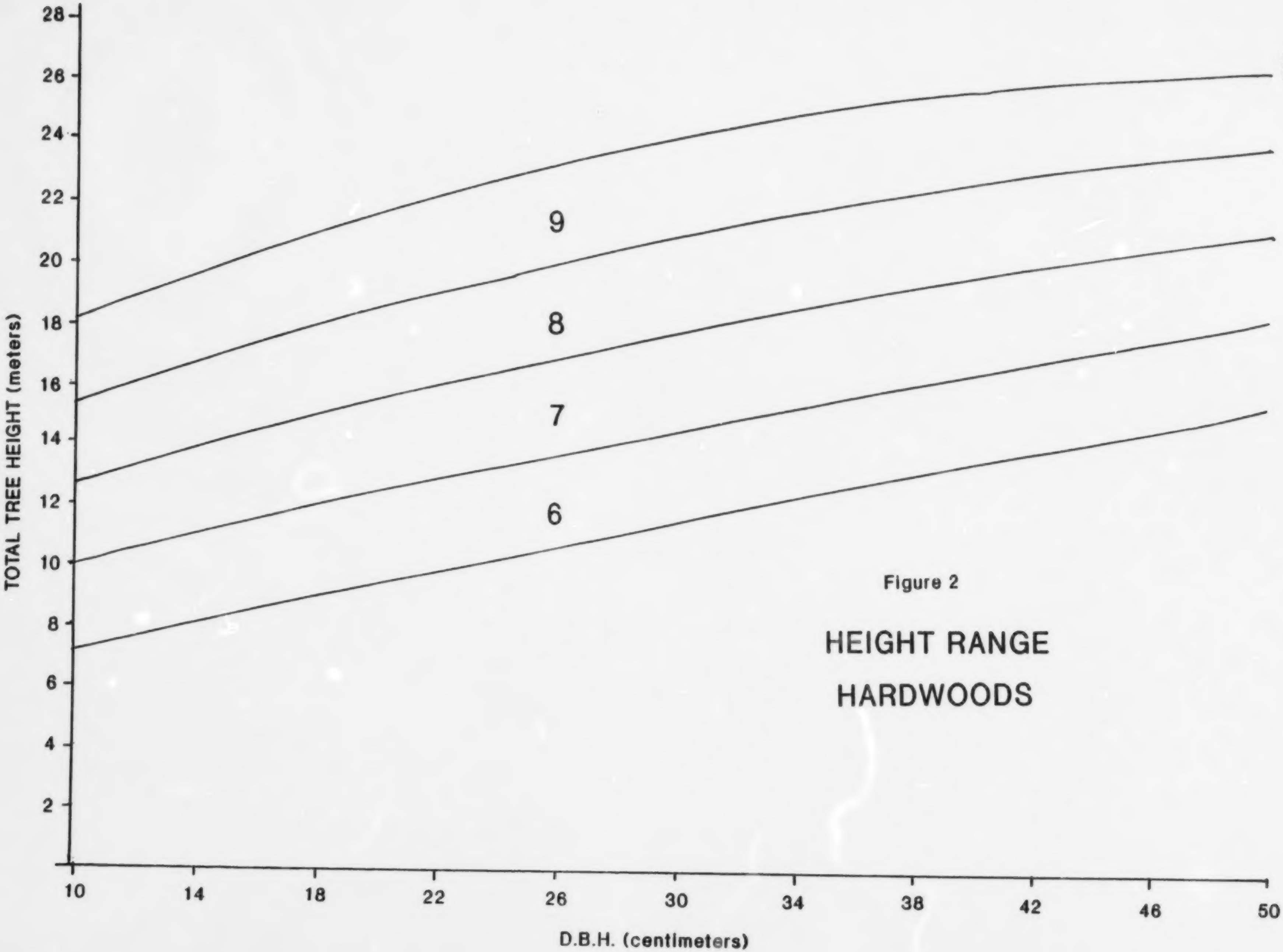

Figure 2

HEIGHT RANGE
HARDWOODS